IEI Technology Corp.

WSB-9150

Socket-478 Pentium® 4 Full-Size CPU Card
with PCIE-GbE, Serial ATA, DVI, and USB2.0

User Manual

Rev. 1.0 December 2005

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Support

Any questions regarding the content of this manual or related issue can be e-mailed to us directly at: SUPPORT@IEI.COM.TW

Package Contents

The WSB-9150 package includes the following items:

- 1 x WSB-9150 single board computer
- 1 x RS-232 cable P/N: 19800-000047-RS
- 1 x USB cable P/N: CB-USB02
- 1 x ATA 66/100 flat cable P/N: 32200-000052-RS
- 1 x ATX-12V cable P/N: 32100-087100-RS
- 2 x SATA cable P/N: 32000-062800-RS
- 1 x SATA power cable P/N: 32100-088600-RS
- 1 x Keyboard/ PS2 mouse Y cable P/N: 32000-000138-RS
- 1 x mini jumper pack P/N: 33100-000079-RS
- 1 x Utility CD P/N: IEI-7B000-000087/CD1
- 1 x QIG (quick installation guide) P/N: 51000-001069-RS

Ordering Information

Standard

- WSB-9150-R10

  PICMG 1.0 Socket 478 800MHz FSB CPU Card with VGA, PCI-Express GbE, S-ATA, USB 2.0 and Audio

Optional:

1. DVI function please contact supplier (ship with DVI cable: IO-KIT-001)
2. Audio cable P/N: AC-KIT08R
3. CPU Cooler P/N: CF-519
4. FDD cable P/N: 32200-000017-RS
5. LPT cable P/N: 32200-000040-RS

If any of these items are missing or damaged, please contact the dealer from whom you purchased this product. Save the shipping materials and carton in case you want to ship or store the product in the future.

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ESD Precautions

Observe all conventional anti-ESD methods while handling the CPU board. The use of a grounded wrist strap and an anti-static work pad is recommended.
Avoid dust and debris or other static-accumulating materials in your work area.

Conventions Used in This Manual

Naming

From this point on and throughout the rest of this manual, the subject product is referred to as simply the "subsystem" or the "system."

WARNING

Warnings appear where overlooked details may cause damage to the equipment or result in personal injury. Warnings should be taken seriously. Warnings are easy to recognize. The word "warning" is written as "**WARNING**," both capitalized and bold and is followed by text in italics. The italicized text is the warning message.

CAUTION

Cautionary messages should also be heeded to help you reduce the chance of losing data or damaging the system. Cautions are easy to recognize. The word "caution" is written as "**CAUTION**," both capitalized and bold and is followed by text in italics. The italicized text is the cautionary message.

NOTE

These messages inform the reader of essential but non-critical information. These messages should be read carefully as any directions or instructions contained therein can help you avoid making mistakes. Notes are easy to recognize. The word "note" is written as "**NOTE**," both capitalized and bold and is followed by text in italics. The italicized text is the cautionary message.

Lists

Bulleted Lists: Bulleted lists are statements of non-sequential facts that can be read in any order. Each statement is preceded by a round black dot "•."

Numbered Lists: Numbered lists describe sequential steps you should follow in order.

Chapter

1

Hardware Configuration

1.1 Introduction

Thank you for choosing the WSB-9150 SOCKET 478 PENTIUM 4 Single Board Computer. The WSB-9150 board is a PICMG form factor board, which comes fully equipped with high performance Processor and advanced high performance multi-mode I/O, designed for the system manufacturers, integrators, or VARs that want to provide all the performance, reliability, and quality at a reasonable price.

In addition, the GMCH provides an integrated graphics device (IGD) delivering cost competitive 3D, 2D and video capabilities. The GMCH's analog port uses an integrated 400 MHz RAMDAC that can directly drive a standard progressive scan analog monitor up to a resolution of 2048x1536 pixels with 32-bit color at 85 Hz.

WSB-9150 supports one or two 64-bit wide DDR400 data channels. Available bandwidth is up to 3.2GB/s in single-channel mode and 6.4GB/s in dual-channel mode.

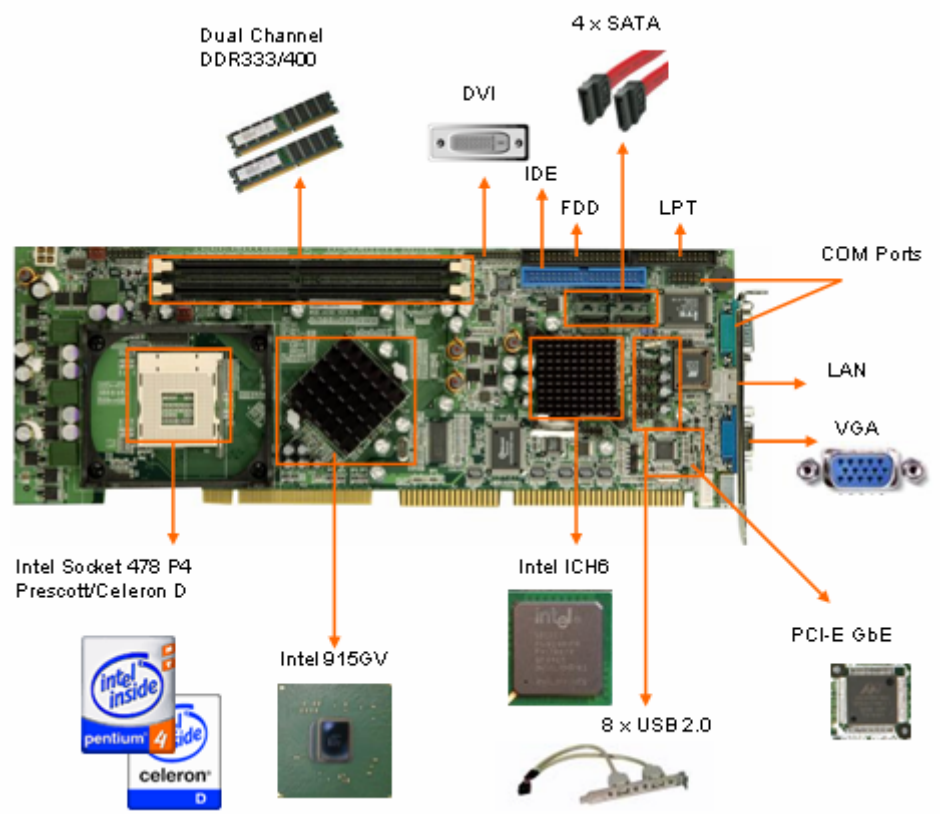
The single-chip PCI Express based 88E8053 device with a Gigabit Ethernet controller. It supports full 100/1000-base-T Ethernet. It is fully integrated 10BASE-T/100BASE-TX LAN solution with high performance networking functions and low power features.

The ICH6 integrates SATA Host Controller, supporting four SATA ports with up to 150MB/s maximum transfer rate. The ICH6R also offers data striping for higher performance (RAID Level 0), and mirroring for Data security (RAID Level 1).

For applications that need high-speed serial transmission, WSB-9150 provides eight USB2.0 ports for your convenience. The high speed USB2.0 host controller implements an ECHI interface that provides bandwidth up to 480Mb/s.

1.2 Features

- Intel long term support product
- Intel P4 / Prescott / Celeron CPU supports up to FSB 800 MHz
- Intel GMA900 graphic accelerator
- Dual channel DDR400 SDRAM memory support
- High performance PCI Express Gigabit Ethernet controller



1.3 Specification

General Specifications

- **CPU:** Intel Socket-478 P4/Prescott/Celeron-D up to 800 MHz FSB
- **Interface:** PICMG 1.0 compliant, PCI 2.1
- **Chipset:** Intel 915GV and ICH6/ICH6R.
- **BIOS:** AMI Bios

- **System memory:** Two 184-pin DIMM sockets support Dual Channel DDR333/400 SDRAM, support one or two 64-bit wide DDR data channels. The maximum memory is up to 2 GB. Installing two identical DIMMs in pairs will result in Dual Channel operations, which theoretically will double the memory bandwidth.
- **Enhanced IDE interface:** Supports up to 2 PCI Enhanced IDE hard drives. The Ultra DMA 100 IDE can handle data transfer up to 100 MB/s, compatible with existing ATA IDE specifications.
- **Serial ATA:** Intel ICH6 integrates 4 SATA interfaces with transfer rate up to 150MB/s. It supports RAID 0, 1.(ICH6R only)
- **Real Time Clock:** Intel ICH6 built-in RTC with Lithium battery
- **Hardware monitor:** Built-in to monitor CPU Vcore, Vcc, CPU/System fan speed and temperature detecting function.

Display

- **Chipset:** Intel 915GV GMCH (Graphic Memory Controller Hub), which integrates Intel® Graphics Media Accelerator (GMA) 900. It supports widescreen LCD displays and accelerated DirectX* 9. Onboard SDVO chip (SIL1362) supports color DVI display (optional).
- **Connector:** DB-15 connector for VGA display on rear I/O panel.

Ethernet

- **Chipset:** Marvell 88E8053 Gigabit Ethernet controller supports full 100/1000-base-T Ethernet.
- **Connector:** Dual RJ-45 connectors with LED on rear I/O panel

Multi I/O Ports

- **Chipset:** Intel ICH6 with ITE IT8712F Super I/O controller
- **Serial ports:** Two RS-232 ports by pin-header. Ports can be individually configured to COM1, COM2 or disabled.
- **Bi-directional parallel port:** One LPT port, supports EPP/ECP/SPP parallel mode
- **FDD port:** One FDD port, supports up to two floppy disk drives, 5.25”

(360KB and 1.2MB) and/or 3.5" (720KB, 1.44MB and 2.88MB).

- **IrDA port:** Supports Serial Infrared (SIR) and Amplitude Shift Keyed IR (ASKIR) interface
- **USB port:** Supports eight USB 2.0 ports, by pin-headers
- **Watchdog timer:** Software Programmable Reset, automatically generated when CPU does not periodically trigger the timer (hung).
- **PS/2 Keyboard and Mouse:** PS/2 Keyboard/Mouse connector on rear I/O panel.

Audio

- **Audio:** Realtek ALC655 AC'97 Audio CODEC, 16-bit, full-duplex AC'97 Rev. 2.3 compatible six-channel audio CODEC designed for PC multimedia systems.
- **Connector:** Line-out connector on rear I/O panel and CD-in, line-out, mic-in pin-headers for Audio Module

Power Consumption & Environment

- **Power consumption:**
  - Pentium 4 Northwood 3.0GHz CPU (2GB DDR400 DDR-SDRAM): +12V@6.7A, +5V@7.8A, -12V@0.3A, 5VSB@0.4A.
  - Pentium 4 Prescott 3.4GHz CPU (2GB DDR400 DDR-SDRAM): +12V@9.0A, +5V@8.1A, -12V@0.3A, 5VSB@0.4A.
- **Power Supply:** 350-Watt power supply or higher is recommended.
- **Power control function:** meets ACPI 1.1 specification.
- **Operating Temperature:** 0 ℃ ~ 60 ℃ (*CPU needs Cooler & silicone heat sink paste)
- **Relative Humidity:** 5%~95%, non condensing

WARNING!

1. Never run the processor without the heat sink and CPU Fan.
2. Be sure to connect ATX_12V power connector (PW) for the CPU power.

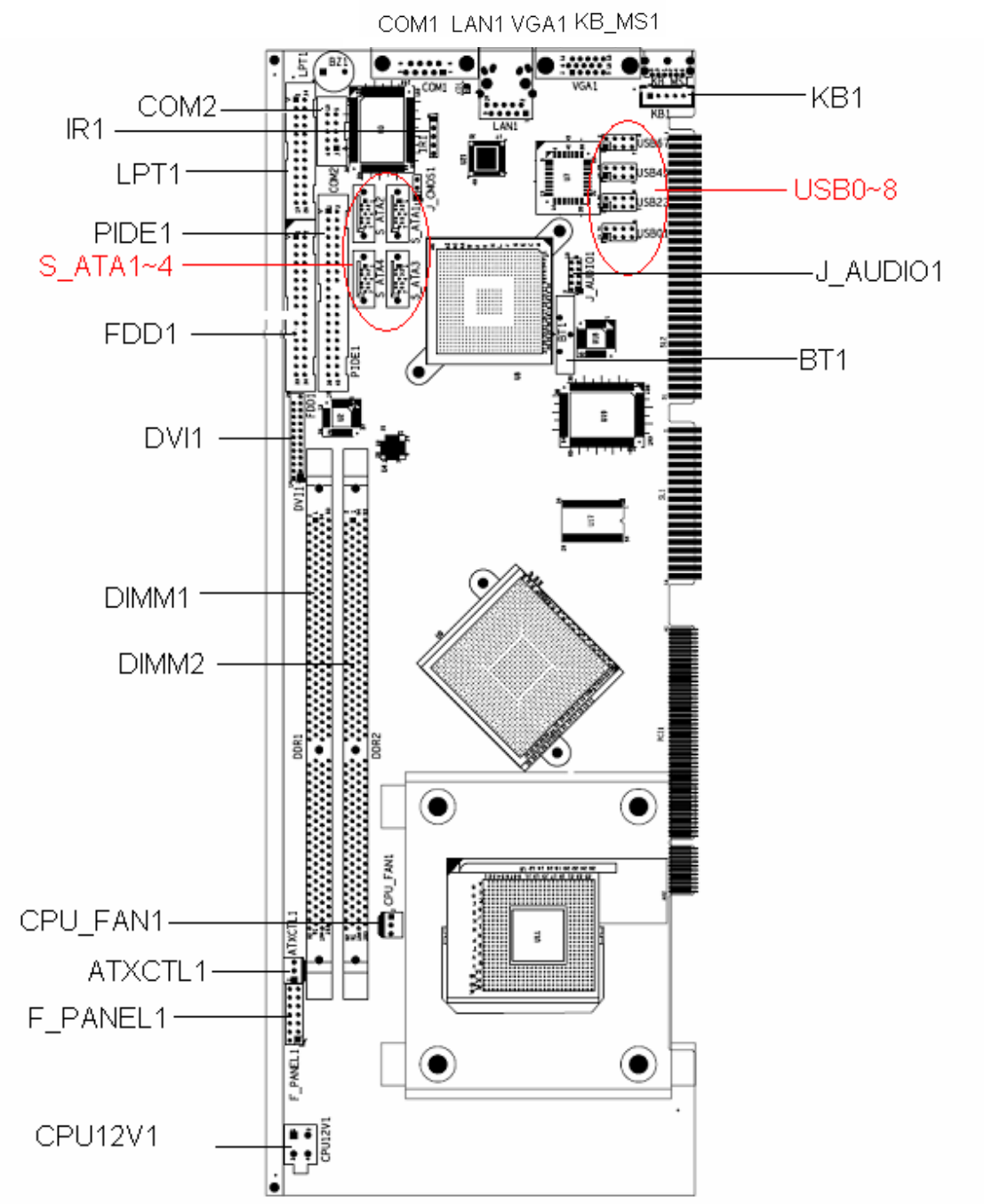
1.4 Jumpers and Connectors

Jumpers on WSB-9150 can be used to set the system configuration according to your application. WSB-9150 is also equipped with Connectors that allow you to connect external devices such as HDD, FDD, K/B, Printer, etc.

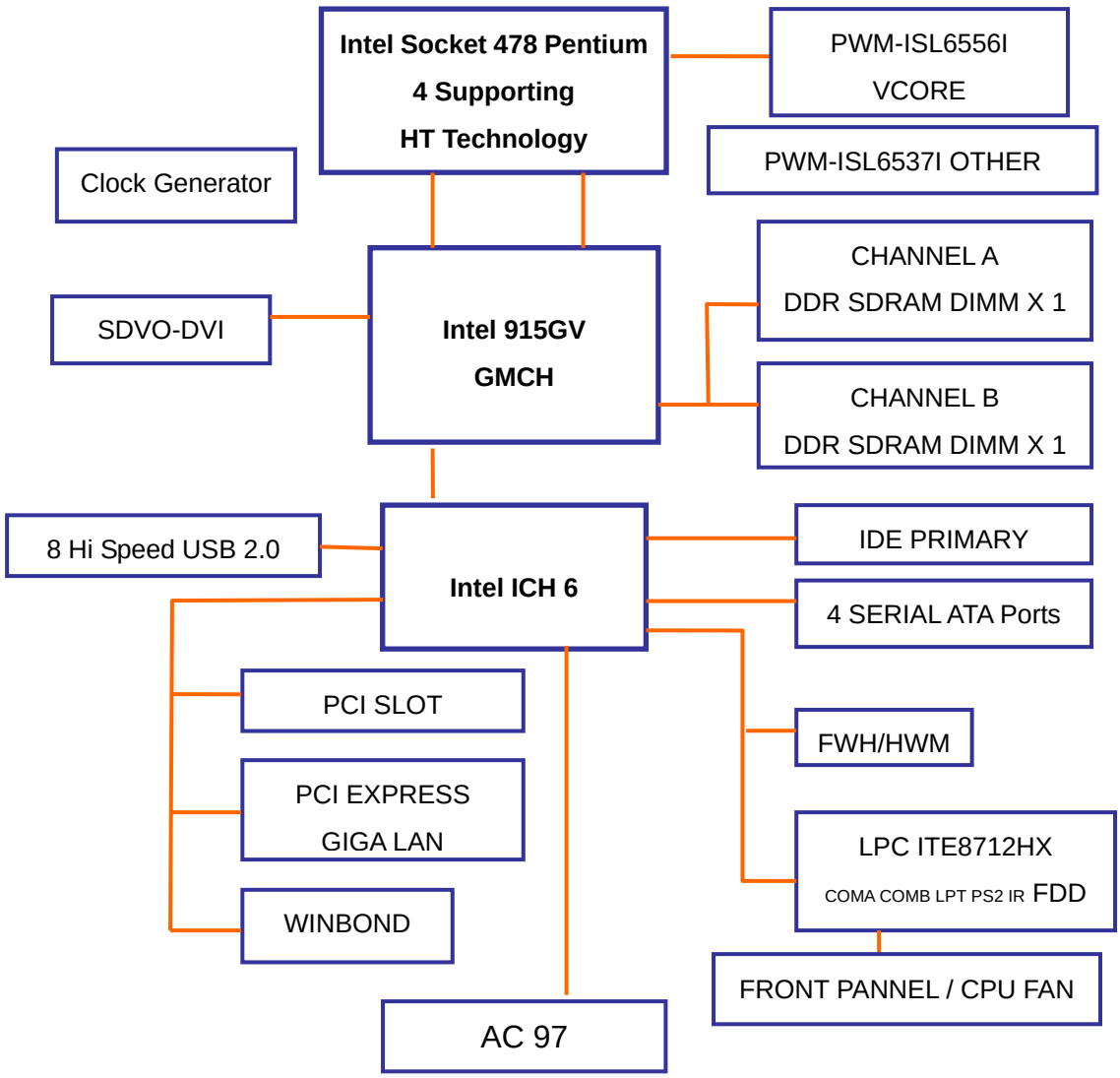
The tables below list the function of jumpers and connectors on WSB-9150.

Jumpers	
Label	**Function**
J_COMS1	Clear CMOS Setup

1.5 Board Layout: Jumper and Connector Locations



1.6 Block Diagram



1.7 Jumper Settings

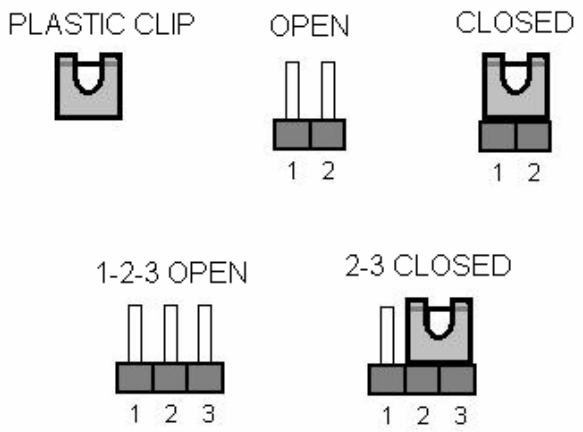
This section provides instructions on how to configure WSB-9150 by setting the jumpers. It also includes WSB-9150's default settings and options for each jumper.

1.7.1 How to set jumpers

A jumper is a metal bridge that closes an electrical circuit. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To CLOSE/SHORT a jumper means connecting the pins of the jumper with the plastic clip and to OPEN a jumper means removing the plastic clip from the jumper.

NOTE:

The default jumper setting is marked in GREY color.



1.7.2 CMOS clear (J_COMS1)

In case WSB-9150 fails to boot due to user's improper BIOS setting, CLR_CMOS jumper can be used to clear the CMOS data and reset the system BIOS information by shorting pin 2-3 for few seconds and then moving the jumper back to pin 1-2.
If WSB-9150 shows "CMOS Settings Wrong" message during the boot up, press F1 to

go into the CMOS Setup menu. You may then enter the correct CMOS setting or Load Optimal Defaults or Load Failsafe Defaults. Save your changes and exit the CMOS Setup menu.

NOTE:

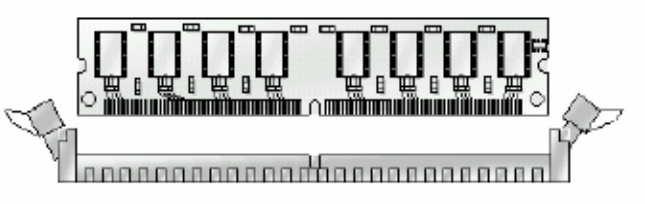
1. In normal operation, pin 1-2 must stay in CLOSED condition.
2. Power must be turned OFF before clearing CMOS data

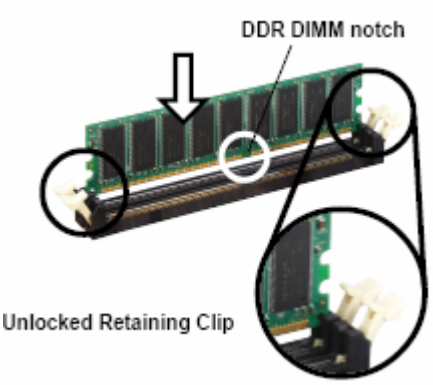
J_COMS1	DESCRIPTION
1-2	(Normal Operation)
2-3	Clear CMOS Setup

1.8 System Memory

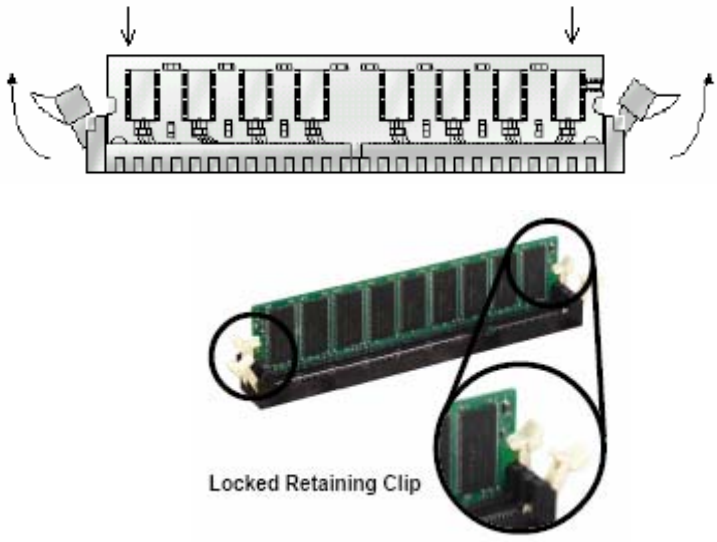
WSB-9150 has two 184-pin DIMM sockets for a maximum total memory module up to 2GB 2.5V DDR SDRAM. Dual Channel Technology is applied only when two same modules are used. Installing two identical DIMMs results in dual-channel operation mode, which will double the memory bandwidth to 6.4GB/s.

To install memory module, first make sure the two handles of the DIMM socket are in the "open" position (the handles lean outward).





Slowly slide the DIMM module along the plastic guides on both ends of the socket, then press the DIMM module right down into the socket, until you hear a 'click' sound. This is when the two handles have automatically locked the memory module into the correct position of the DIMM socket. To remove the memory module, just push both handles outward, and the memory module will be ejected by the mechanism in the socket.



1.9 Cache Memory

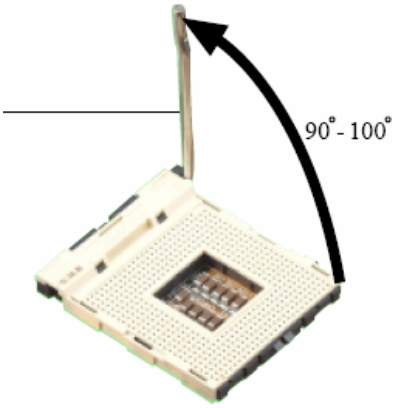
Since the second-level (L2) cache has been embedded into the Intel® socket 478 Pentium® 4/Celeron processor, you do not have to take care of either SRAM chips or SRAM modules. The built-in second-level cache in the processor yields much higher performance than the external cache memories. The cache size in the Intel Pentium 4 processor 3.0GHz, for example, is 1024 KB.

1.10 Processor Installation

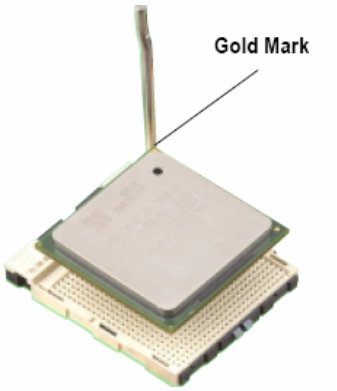
The WSB-9150 is designed for Intel Pentium® 4 processor/Celeron (socket 478)

Step 1:

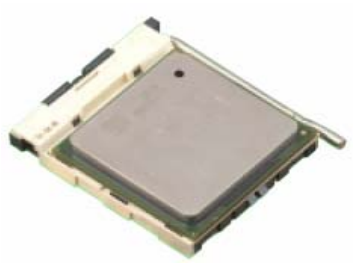
Lift the processor socket lever



Step 2: Align the corner having the triangle marking on the processor with the corner where the lever is attached to the socket



Step 3: Lower the lever to its original position



Chapter

2

Connecting Peripherals

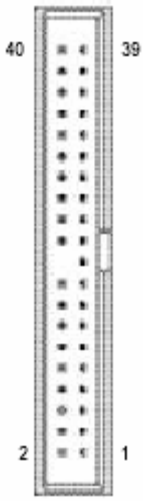
2.1 PCI E-IDE Disk Drive Connector (PIDE1)

NOTE:

Please refer to ***Appendix B*** for detailed information about pin assignments.

You can attach up to two IDE (Integrated Drive Electronics) drives to the WSB-9150's built-in controller. WSB-9150's Ultra DMA100 IDE supports data transfer up to 100MB/s. Ultra DMA 100 IDE drive must be equipped with Ultra DMA 100 cable, for optimum performance.

IDE: IDE Connector			
PIN	**DESCRIPTION**	**PIN**	**DESCRIPTION**
1	RESET#	2	GND
3	DATA 7	4	DATA 8
5	DATA 6	6	DATA 9
7	DATA 5	8	DATA 10
9	DATA 4	10	DATA 11
11	DATA 3	12	DATA 12
13	DATA 2	14	DATA 13
15	DATA 1	16	DATA 14
17	DATA 0	18	DATA 15
19	GND	20	N/C
21	DRQ	22	GND
23	IOW#	24	GND
25	IOR#	26	GND
27	CHRDY	28	REV. PULL LOW
29	DACK	30	GROUND-DEFAULT
31	INTERRUPT	32	N/C
33	SA1	34	N/C
35	SA0	36	SA2
37	HDC CS0#	38	HDC CS1#
39	HDD ACTIVE#	40	GND



2.2 Floppy Disk Drive Connector (FDD1)

You can attach up to two floppy disk drives to the WSB-9150's onboard controller. You can use 3.5" (360KB, 720KB, 1.2MB, 1.44MB and 2.88MB) drives. The motherboard comes with a 34-pin daisy-chain drive connector cable. On one end of the cable is a 34-pin flat-cable connector. On the other end are two sets of 34-pin flat-cable connector (usually used for 3.5" drives). The set on the end (after the twist in the cable) connects to the A: floppy drive. The set in the middle connects to the B: floppy drive.

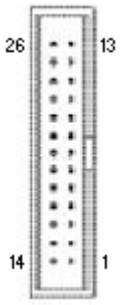
Please connect the red power connector wire to the pin1 position.

FDD: Floppy Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	2	RWC0-
3	GND	4	NC
5	GND	6	RWC1-
7	GND	8	INDEX-
9	GND	10	MO-A
11	GND	12	DS-B
13	GND	14	DS-A
15	GND	16	MO-B
17	GND	18	DIR-
19	GND	20	STEP-
21	GND	22	WD-
23	GND	24	WGATE-
25	GND	26	TRK0-
27	GND	28	WP-
29	GND	30	RDATA-
31	GND	32	HEAD-
33	GND	34	DSKCHG-

2.3 Parallel Port (LPT1)

Usually, a printer is connected to the parallel port. The WSB-9150 includes an on-board parallel port, accessed via a 26-pin flat-cable connector LPT.

LPT: Parallel Port Connector			
PIN	**DESCRIPTION**	**PIN**	**DESCRIPTION**
1	STROBE#	14	AUTO FORM FEED #
2	DATA0	15	ERROR#
3	DATA1	16	INITIALIZE
4	DATA2	17	PRINTER SELECT LN#
5	DATA3	18	GND
6	DATA4	19	GND
7	DATA5	20	GND
8	DATA6	21	GND
9	DATA7	22	GND
10	ACKNOWLEDGE	23	GND
11	BUSY	24	GND
12	PAPER EMPTY	25	GND
13	PRINTER SELECT	26	NC



2.4 Serial Ports (COM1 & COM2)

The WSB-9150 offers two high speed NS16C550 compatible UART's with 16-byte Read/Receive FIFO serial ports.

COM1: 9-pin external connector

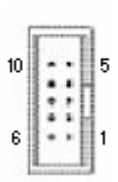
Connector	Ports	Address	Interrupt
COM1	COM1	2F8	IRQ3

COM1:DB-9 Serial Port Connector	
PIN	DESCRIPTION
1	DATA CARRIER DETECT (DCD)
2	RECEIVE DATA (RXD)
3	TRANSMIT DATA (TXD)
4	DATA TERMINAL READY (DTR)
5	GND
6	DATA SET READY (DSR)
7	REQUEST TO SEND (RTS)
8	CLEAR TO SEND (CTS)
9	RING INDICATOR (RI)

COM2: 10-pin external connector

Connector	Ports	Address	Interrupt
COM2	COM2	3F8	IRQ4

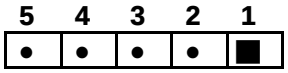
COM2: 10Pin Serial Port Connector	
PIN	**DESCRIPTION**
1	DATA CARRIER DETECT (DCD)
2	RECEIVE DATA (RXD)
3	TRANSMIT DATA (TXD)
4	DATA TERMINAL READY (DTR)
5	GND
6	DATA SET READY (DSR)
7	REQUEST TO SEND (RTS)
8	CLEAR TO SEND (CTS)
9	RING INDICATOR (RI)
10	GND



2.5 IrDA Infrared Interface Port (IR1)

The product has a built-in IrDA port which supports Serial Infrared (SIR) or Amplitude Shift Keyed IR (ASKIR) interface. If you want to use the IrDA port, you have to configure SIR or ASKIR model in the BIOS under Peripheral Setup COM2. Then the normal RS-232 COM 2 will be disabled.

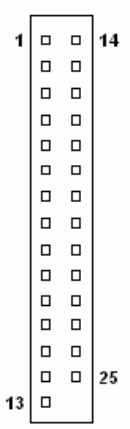
IR: IrDA connector	
PIN	**DESCRIPTION**
1	VCC
2	NC
3	IR-RX
4	GND
5	IR-TX



2.6 DVI Connector (DVI1)

The WSB-9150 provides DVI interface for your DVI display.

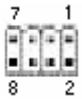
DVI: DVI Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	DATA2-	14	VCC
2	DATA2+	15	NC
3	GND	16	HP_DET
4	NC	17	DATA0-
5	NC	18	DATA0+
6	DDCCLK	19	GND
7	DDCDATA	20	NC
8	NC	21	NC
9	DATA1-	22	GND-
10	DATA1+	23	CLK+
11	GND	24	CLK-
12	NC	25	GND
13	NC		



2.7 USB Port Connectors (USB01, USB23, USB45, & USB67)

The WSB-9150 provides up to four USB (Universal Serial Bus) ports, which gives complete Plug & Play and hot swapping for up to 127 external devices. The USB interface complies with USB Specification Rev. 2.0 support transmission rate up to 480 Mbps and is fuse-protected. The USB interface can be disabled in the system BIOS setup.

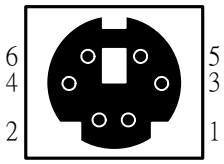
USB1, USB2, USB3, UBS4: 2 ports USB Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC	2	GND
3	DATA0-	4	DATA1+
5	DATA0+	6	DATA1-
7	GND	8	VCC



2.8 Keyboard & Mouse Connector (KB_MS1 & KB1)

The WSB-9150 has a 6-pin DIN keyboard/mouse connector (KB/MS). For alternative application, a keyboard pin header connector (KB) is also available on board, located on KB respectively.

KB_MS1: Mini DIN Keyboard / Mouse Connector	
PIN	**DESCRIPTION**
1	KEYBOARD DATA
2	MOUSE DATA
3	GND
4	+5V
5	KEYBOARD CLOCK
6	MOUSE CLOCK



KB1: 5-pin Header Keyboard Connector	
PIN	**DESCRIPTION**
1	KEYBOARD CLOCK
2	KEYBOARD DATA
3	N/C
4	GND
5	+5V

2.9 Fan Connectors (CPU_FAN1)

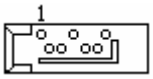
The WSB-9150 also has a CPU with cooling fan connector and chassis fan connector, which can supply 12V/500mA to the cooling fan. There is a "rotation" pin in the fan connector, which transfers the fan's rotation signal to the system BIOS in order to recognize the fan speed. Please note that only some specific types of fans offer a rotation signal.

CPU_FAN1: Fan Connector	
PIN	**DESCRIPTION**
1	GND
2	+12V
3	Rotation Signal

2.10 Serial ATA Connectors (S_ATA1, S_ATA2, S_ATA3, & S_ATA4,)

The WSB-9150 provides four Serial ATA ports (S_ATA1, S_ATA2, S_ATA3, and S_ATA4) to connect with Serial ATA devices. Serial ATA can provide data transfer rate up to 150MB/s. Serial ATA also provides Hot-Plug support, lower pin-count, lower signaling voltage, easier cabling and CRC Error Detection. Please refer to the BIOS setting for the Serial ATA and install the proper driver in order to work properly.

S_ATA1, S_ATA2, S_ATA3, S_ATA4: Serial ATA Connector	
PIN	**DESCRIPTION**
1	GND
2	S_TXP
3	S_TXN
4	GND
5	S_RXP
6	S_RXN
7	GND



2.11 External Switches and Indicators

There are several external switches and indicators for monitoring and controlling your CPU board. All functions are in the CN1 connector.

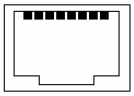
F_Panel1 : External Switches and Indicators panel

	PIN	DESCRIPTION	PIN	DESCRIPTION	
Power LED	1	+5V	2	+5V	Speaker
	3	N/C	4	N/C	
	5	GROUND	6	N/C	
PWRBTN	7	PWRBTSW-	8	Speaker	
	9	GROUND	10	N/C	RESET
HDDLED	11	+5V	12	Reset-	
	13	HDLED-	14	GND	

2.12 LAN RJ45 Connectors (LAN1)

The WSB-9150 is equipped with one built-in 100/1000Mbps (LAN1) Ethernet controller. You can connect it to your LAN through RJ45 LAN connectors.

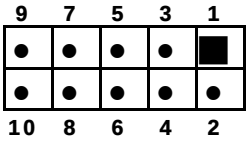
LAN1: 100/1000 LAN RJ45 Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	TX0+	2	TX0-
3	TX1+	4	TX1-
5	VCC	6	GND
7	TX2+	8	TX2-
9	TX3+	10	TX3-
11	SPEED1000-	12	SPEED100+
13	LINK-	14	ACT+



2.13 AC'97 Connector (J_AUDIO1)

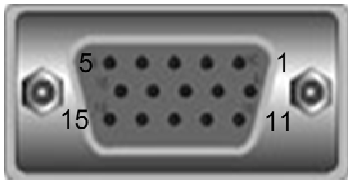
The product does not build in AC'97 AUDIO CODEC; it needs to connect to the AUDIO CODEC module.

AC'97 Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	SYNC	2	BITCLK
3	SDOUT	4	PCBEEP
5	SDIN	6	RST #
7	VCC	8	GND
9	+12V	10	GND



2.14 VGA Connector (VGA1)

The WSB-9150 includes a VGA interface that can drive conventional CRT displays. It is a standard 15-pin D-SUB connector commonly used for VGA.

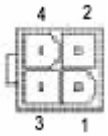


VGA: 15-pin Female Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	RED	2	GREEN
3	BLUE	4	NC
5	GND	6	GND
7	GND	8	GND
9	VCC / NC	10	GND
11	NC	12	DDC DAT
13	HSYNC	14	VSYNC
15	DDCCLK		

2.15 ATX _12V Power Connector (CPU12V1)

The ATX_12V power connector mainly supplies power to the CPU. If the ATX_12V power connector is not connected, the system will not start.

CPU12V1: ATX_12V Power Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	2	GND
3	+12V	4	+12V



2.16 ATXCTL Connector (ATXCTL1)

Connect this connector to the ATX Control Connector of your backplane.

ATXCTL: Backplane to Mainboard Connector	
PIN	DESCRIPTION
1	GND
2	ATX_ON
3	5VSB

Power source from Backplane with ATX Connector

(Through Power Button & +5VSB)

Chapter

3

AMI BIOS Setup

3.1 Introduction

This manual describes AMI's Setup program, which is built into the ROM BIOS. The Setup program allows users to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

3.2 Starting Setup

The AMI BIOS is immediately activated when you first power on the computer. The BIOS reads the system information contained in the CMOS and begins the process of checking out the system and configuring it. When it finishes, the BIOS will seek an operating system on one of the disks and then launch and turn control over to the operating system.

While the BIOS is in control, the Setup program can be activated in one of two ways:

1. By pressing <Del> immediately after switching the system on, or
2. By pressing the <Del>key when the following message appears briefly at the bottom of the screen during the POST.

Press DEL to enter SETUP.

If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" button on the system case. You may also restart by simultaneously pressing <Ctrl>, <Alt>, and <Delete> keys. If you do not press the keys at the correct time and the system does not boot, an error message will be displayed and you will again be asked to...

3.3 Using Setup

In general, you use the arrow keys to highlight items, press <Enter> to select, use the PageUp and PageDown keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate in the Setup program using the keyboard.

Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item in the left hand
Right arrow	Move to the item in the right hand
Esc key	Main Menu -- Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu -- Exit current page and return to Main Menu
Page Up key	Increase the numeric value or make changes
Page Dn key	Decrease the numeric value or make changes
F1 key	General help, only for Status Page Setup Menu and Option Page Setup Menu
F2 /F3 key	Change color from total 16 colors. F2 to select color forward.
F10 key	Save all the CMOS changes, only for Main Menu

3.4 Getting Help

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc> or the **F1** key again.

If, after making and saving system changes with Setup, you discover that your computer no longer is able to boot, the AMI BIOS supports an override to the CMOS settings that resets your system to its defaults.

The best advice is to only alter settings that you thoroughly understand. To this end, we strongly recommend that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both AMI and your systems manufacturer to provide the absolute maximum performance and reliability. Even a seemingly small change to the chipset setup has the potential for causing you to use the override.

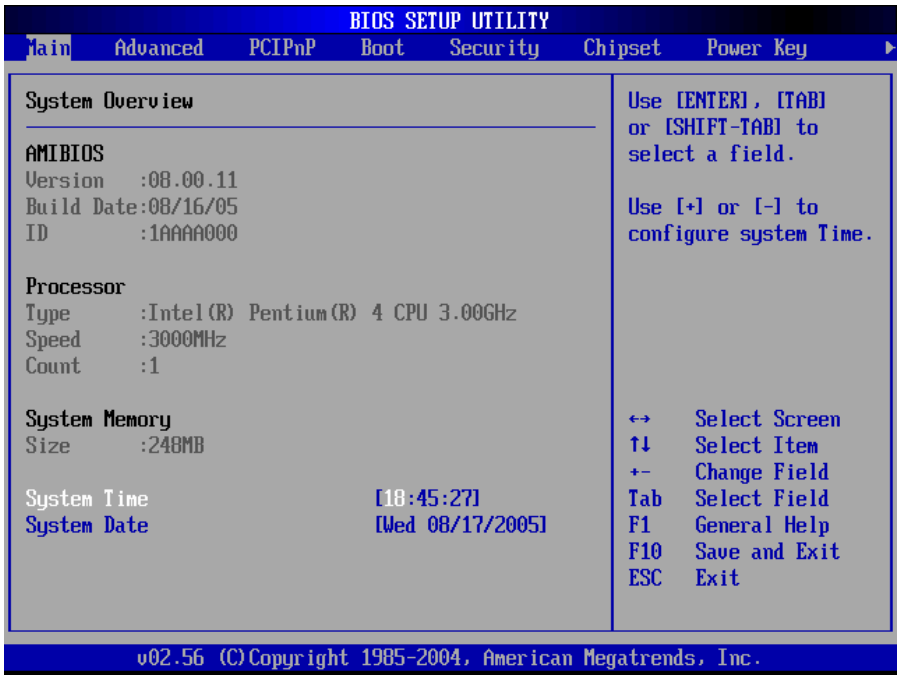
3.5 BIOS menu bar

The **menu bar** on top of the screen has the following main items:

Main	For changing the basic system configuration.
Advanced	For changing the advanced system settings.
PCI PnP	This entry appears if your system supports PnP / PCI.
Boot	For changing the system boot configuration.
Security	Use this menu to set User and Supervisor Passwords.
Chipset	For changing the chipset setting.
Power	For changing the advanced power management configuration.
Exit	For selecting the exit options and loading default settings.

3.6 Main

When you enter the BIOS Setup program, the Main menu screen shows the basic system information.



AMI BIOS This part shows the auto-detected BIOS information.

Processor This part shows the auto-detected CPU specification.

System Memory This part shows the auto-detected system memory.

System Time [HH:MM:SS] It shows the current time. You may set the time according to your local time.

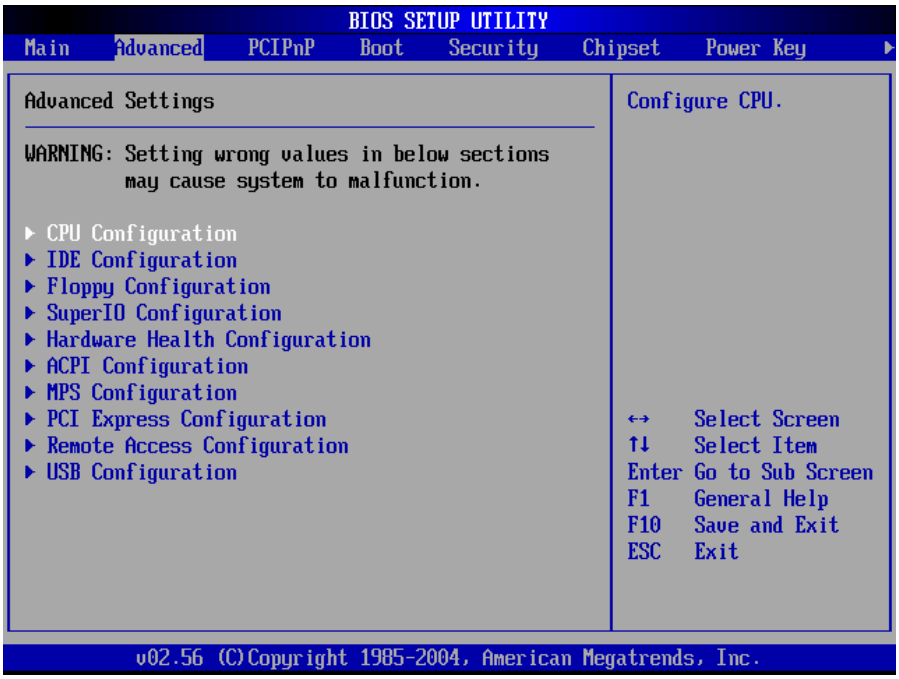
System Date [Day MM/DD/YYYY] This item allows you to set the system date.

3.7 Advanced

The Advanced menu items allow you to change the settings for the CPU and other system devices.

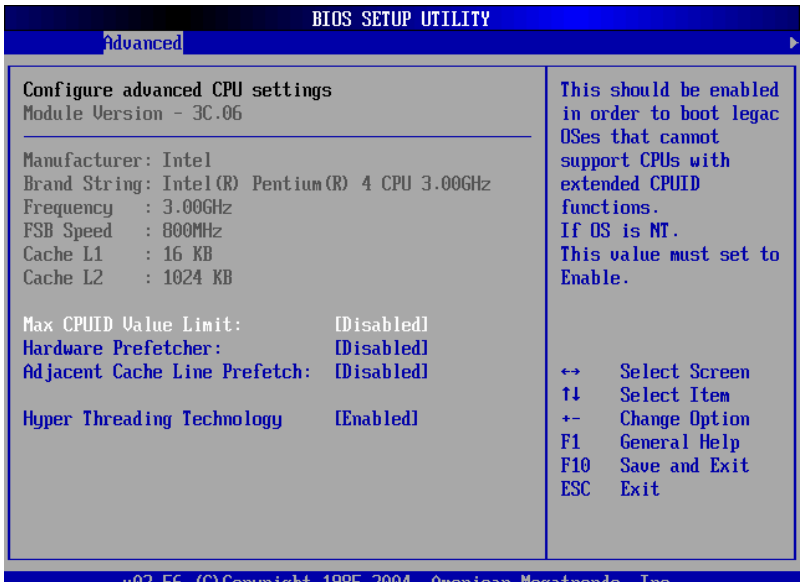
WARNING!

- Don't make any change to the BIOS setting unless you understand the impact thoroughly.
- The default setting has been carefully chosen/set by both AMI and your system manufacturer to provide the absolute maximum performance and reliability. Setting wrong values in some critical section may cause system to malfunction.



3.7.1 CPU Configuration

This sub menu shows the CPU-related information, which is detected by BIOS. User may set the CPU operating speed with following options:


BIOS SETUP UTILITY
Advanced
Configure advanced CPU settings
Module Version - 3C.06
Manufacturer: Intel
Brand String: Intel(R) Pentium(R) 4 CPU 3.00GHz
Frequency : 3.00GHz
FSB Speed : 800MHz
Cache L1 : 16 KB
Cache L2 : 1024 KB
Max CPUID Value Limit: [Disabled]
Hardware Prefetcher: [Disabled]
Adjacent Cache Line Prefetch: [Disabled]
Hyper Threading Technology [Enabled]
This should be enabled in order to boot legac OSes that cannot support CPUs with extended CPUID functions.
If OS is NT.
This value must set to Enable.
↔ Select Screen
↑↓ Select Item
+- Change Option
F1 General Help
F10 Save and Exit
ESC Exit

Max CPUID Value Limit: [Disabled]

Enable this item to boot legacy Operating System that cannot support CPU with extended CPUID function. If your Operating System is NT, this item must be set to [Enabled].
Configuration options: [Disabled] [Enabled]

Hardware Prefetcher: [Disabled]

A third mechanism used to reduce the time waiting for DRAM is through a hardware-prefetching scheme. The hardware prefetcher looks for streams of data and tries to predict what data will be needed next by the processor and proactively tries to fetch these data. All Intel Pentium 4 processors contain a hardware prefetcher that can prefetch both code and data streams, where the data stream can be accessed by loads and/or stores.

Adjacent Cache Line Prefetch [Disabled]

This menu allows you to enable or disable the adjacent cache line prefetch mode.
Configuration options: [Disabled] [Enabled]

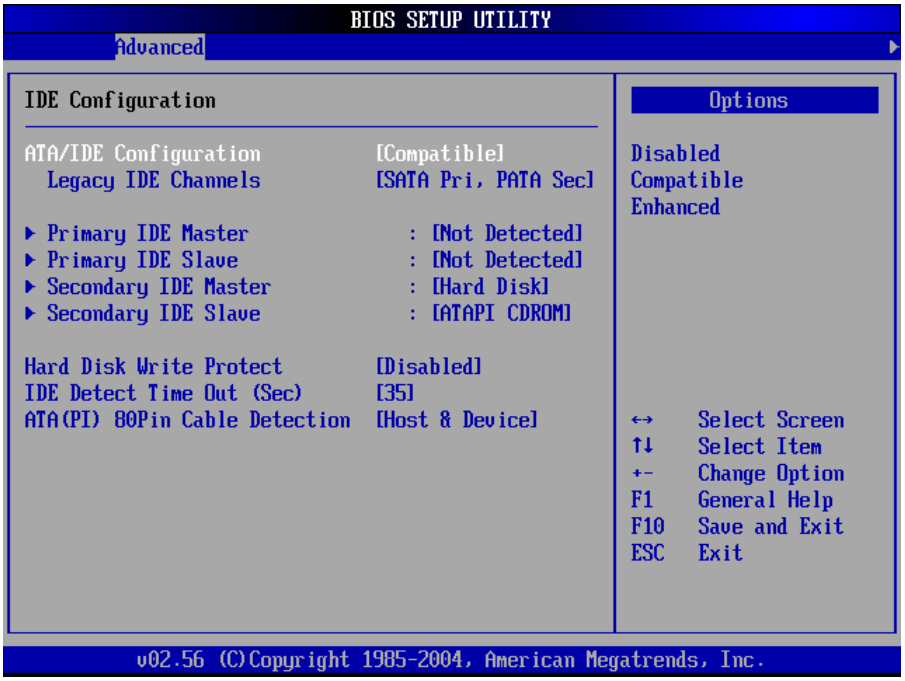
Hyper-Threading Technology [Enabled]

This item allows you to enable or disable the processor Hyper-Threading Technology. This technology allows a single processor supporting Hyper-Threading Technology presents itself to modern operating systems and applications as two virtual processors. The processor can work on two sets of tasks simultaneously; use resources that

otherwise would sit idle, and get more work done in the same amount of time.
Configuration options: [Disabled] [Enabled]

IDE Configuration

The items in this menu allow you to set or change the configurations for the IDE devices installed in the system. Select an item then press Enter if you wish to configure the item.



ATA/IDE Configuration [Compatible]
This item allows you to configure the ATA/IDE.
Configuration options: [Disabled] [Compatible] [Enhanced]
Legacy IDE Channels [SATA Pri, PATA Sec]

Primary and Secondary IDE Master/Slave

While WSB-9150 is turned ON, the BIOS auto detects the presence of IDE devices. This menu, when entered, shows detail information of the IDE devices (Device type, Vendor, Size, LBA Mode, Block Mode, PIO Mode, Async DMA, Ultra DMA, and SMART monitoring). This information is auto-detected by BIOS and is not user-configurable. It will show "Not Detected" if no IDE device is installed in the system.

Type [Auto]
Selects the type of IDE drive. Setting to Auto allows automatic selection of the appropriate IDE device type. Select CDROM if you are specifically configuring a CD-ROM drive. Select ARMD (ATAPI Removable Media Device) if your device is either a ZIP, LS-120, or MO drive.
Configuration options: [Not Installed] [Auto] [CDROM] [ARMD]

LBA/Large Mode [Auto]
Enables or disables the LBA (Logical Block Addressing)/Large mode. Setting to

Auto enables the LBA mode if the device supports this mode, and if the device was not previously formatted with LBA mode disabled.
Configuration options: [Disabled] [Auto]

Block (Multi-sector Transfer) [Auto]

Enables or disables data multi-sectors transfers. When set to Auto, the data transfer from and to the device occurs multiple sectors at a time if the device supports multi-sector transfer feature. When set to Disabled, the data transfer from and to the device occurs one sector at a time.
Configuration options: [Disabled] [Auto]

PIO Mode [Auto]

IDE Programmed I/O (PIO) Mode programs the timing cycle between IDE drive and the programmable IDE controller. As PIO mode increases, the cycle time decreases. Select [Auto] to let AMIBIOS select the PIO mode. If you select a specific value for the PIO mode, you must be absolutely sure that the value you are selecting is supported by the IDE being configured.
Configuration options: [Auto] [0] [1] [2] [3] [4]

DMA Mode [Auto]

Selects the DMA mode for the device.
Configuration options: [Auto] [SWDMA0] [SWDMA1] [SWDMA2] [MWDMA0] [MWDMA1] [MWDMA2] [UDMA0] [UDMA1] [UDMA2] [UDMA3] [UDMA4] [UDMA5]

SMART Monitoring [Auto]

SMART stands for Smart Monitoring, Analysis, and Reporting Technology. It allows AMIBIOS to use the SMART protocol to report server system information over a network.
Configuration options: [Auto] [Disabled] [Enabled]

32Bit Data Transfer [Disabled]

Enables or disables 32-bit data transfer. If the host controller does not support 32-bit data transfer, this menu must be set to [Disabled]
Configuration options:[Disabled] [Enabled]

Hard Disk Write protect [Disabled]

This menu allows you to enable or disable the hard disk write protect.
Configuration options: [Disabled] [Enabled]

IDE Detect Time Out (Sec) [35]

Selects the time out value for detecting ATA/ATAPI devices.
Configuration options: [0] [5] [10] [15] [20] [25] [30] [35]

ATA(PI) 80Pin Cable Detection [Host & Device]

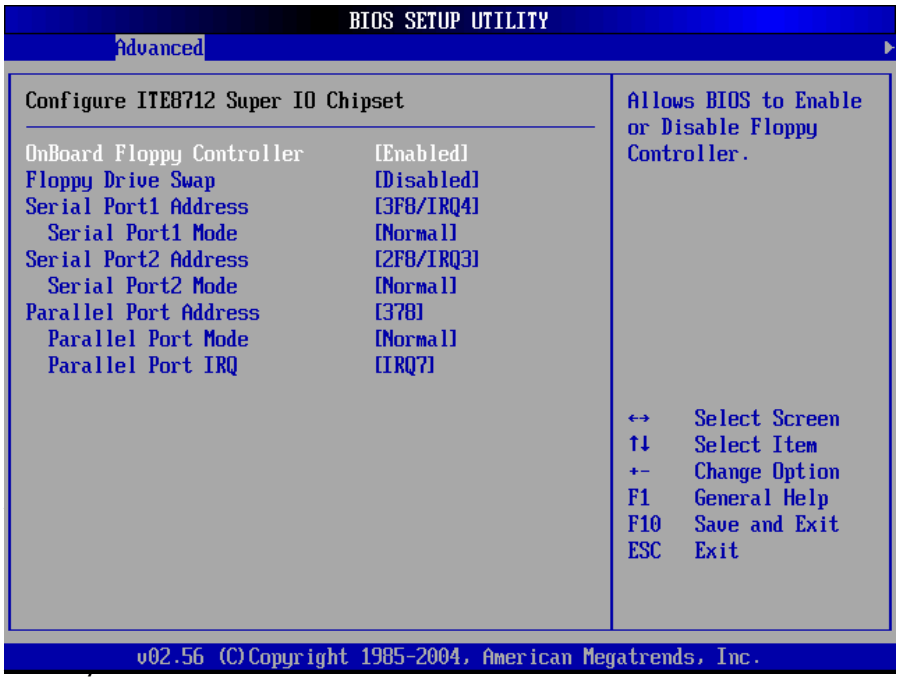
This menu allows you to configure the mechanism for detecting 80-pin ATA(PI) cable.
Configuration options: [Host & Device] [Host] [Device]

3.7.3 Floppy Configuration

Floppy A [1.44 MB 3|"]
Select the type of floppy drive connected to WSB-9150.
Configuration options: [Disabled][360K, 5.25"][1.2M, 5.25"][720K, 3.5"] [1.44M, 3.5"] [2.88M, 3.5"]

Floppy B [Disabled]
Select the type of floppy drive connected to WSB-9150.
Configuration options: [Disabled][360K, 5.25 in.][1.2M, 5.25 in.][720K, 3.5 in.] [1.44M, 3.5 in.] [2.88M, 3.5in.]

3.7.4 Super IO Configuration



Configuration options: [Disabled] [3F8/IRQ4] [3E8/IRQ4] [2E8/IRQ3]

Serial Port2 Address [2F8/IRQ3]
Allow you to select the Serial Port2 base address.
Configuration options: [Disabled] [2F8/IRQ3] [3E8/IRQ4] [2E8/IRQ3]

Parallel Port Address [378]
Allow you to select the Parallel Port base addresses.
Configuration options: [Disabled] [378] [278] [3BC]

Parallel Port Mode [Normal]
Allow you to select the Parallel Port mode.
Configuration options: [Normal] [Bi-directional] [EPP] [ECP]

Parallel Port IRQ [IRQ7]
Configuration options: [IRQ5] [IRQ7]

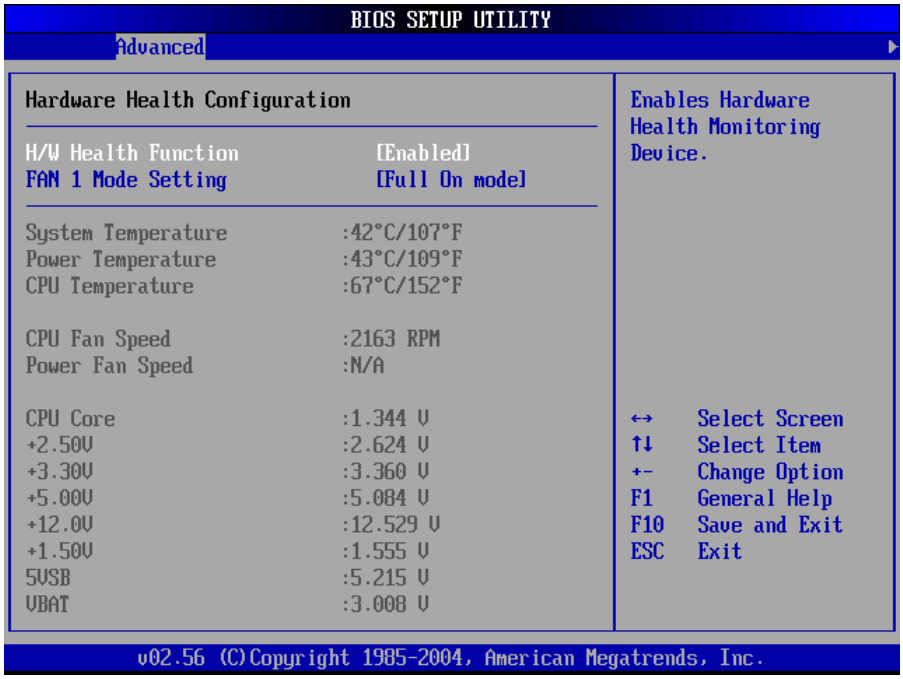
3.7.5 Hardware Health Configuration

This screen shows you the CPU, System and Power temperature, Fan speed and CPU core voltage. It also allows your to configure the Hardware Health Monitoring.

H/W Health Function [Enabled]
To enable/disable H/W Health function

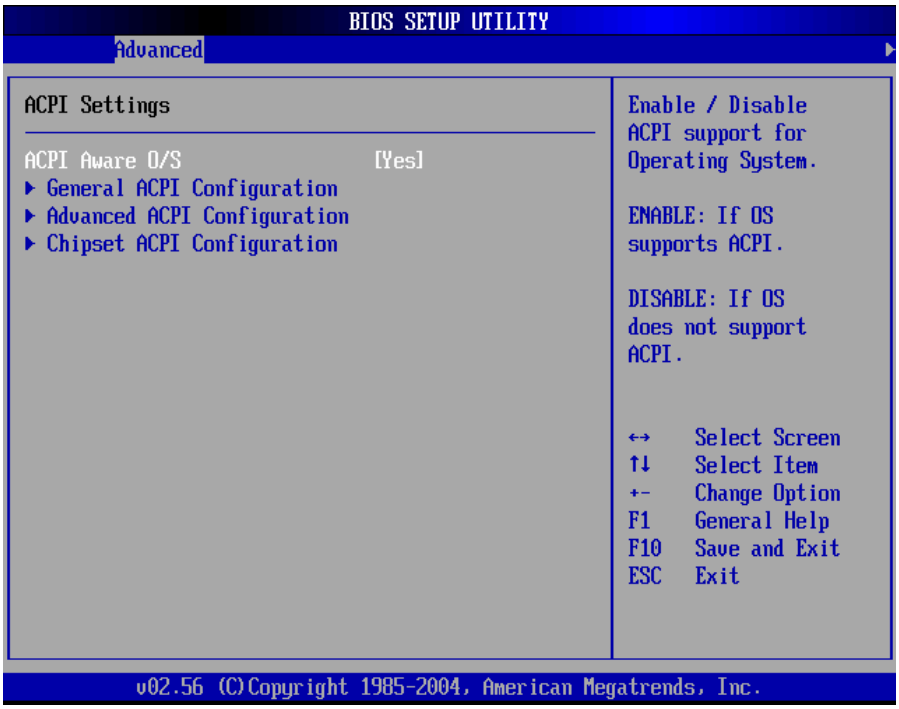
FAN1 Mode Setting [Full On Mode]

To configure Fan mode as Full On, Automatic or PWM Manually mode.



3.7.6 ACPI Configuration

This menu is used to change the settings for the Advanced Power Management (APM). Select an item then press Enter to display the configuration options.



ACPI Aware O/S
This menu allows you to enable or disable ACPI support for Operating System. Select [Yes] is OS supports ACPI and select [No] is OS does not support ACPI.
Configuration options: [Yes] [No]

General ACPI Configuration
This menu configures the general ACPI setting.

Advanced ACPI Configuration
Use this section to configure additional ACPI options. It contains below sub-menus:

ACPI 2.0 Features [No]
This menu allows you to enable or disable RSPD pointers to 64-bit Fixed System Description Tables.
Configuration options: [No] [Yes]

ACPI APIC support [Enabled]
This menu allows you to enable or disable the ACPI support in the ASIC. When set to Enabled, the ACPI APIC table pointer is included in the RSDT pointer list.
Configuration options: [Disabled] [Enabled]

AMI OEMB table [Enabled]
Allow you to enable or disable the inclusion of the BIOS -> AML exchange pointer to R(X)SDT pointer lists.
Configuration options: [Disabled] [Enabled]

Headless mode [Disabled]
Allow you to enable or disable headless operation mode through ACPI.

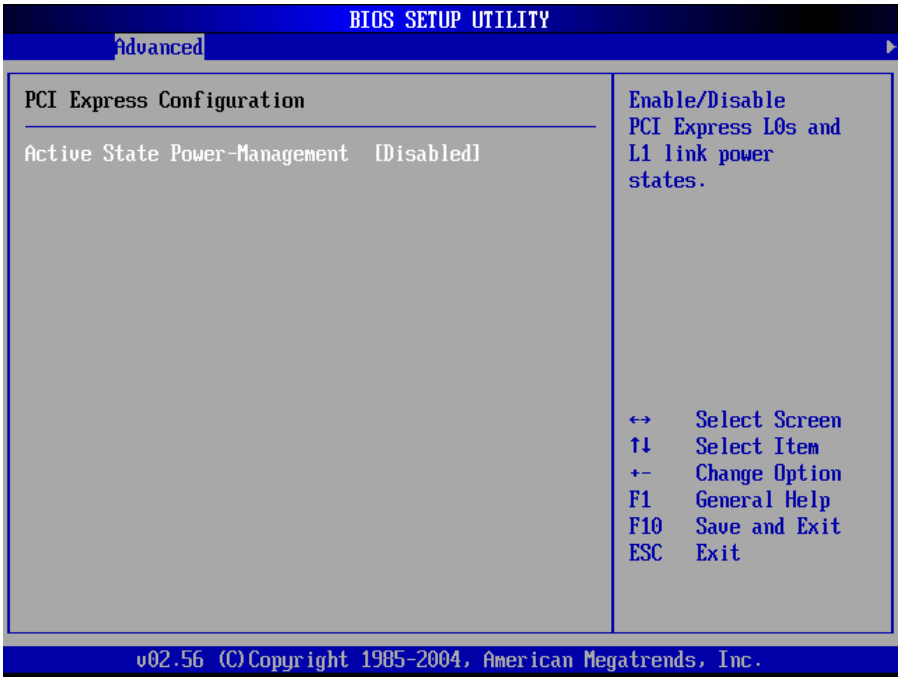
Chipset ACPI Configuration
It contains chipset ACPI related Configuration settings. You may enable or disable the **APIC ACPI SCI IRQ**.

3.7.7 MPS Configuration

This menu allows you to configure MPS Revision [1.4]
Configuration options: [1.1] [1.4]

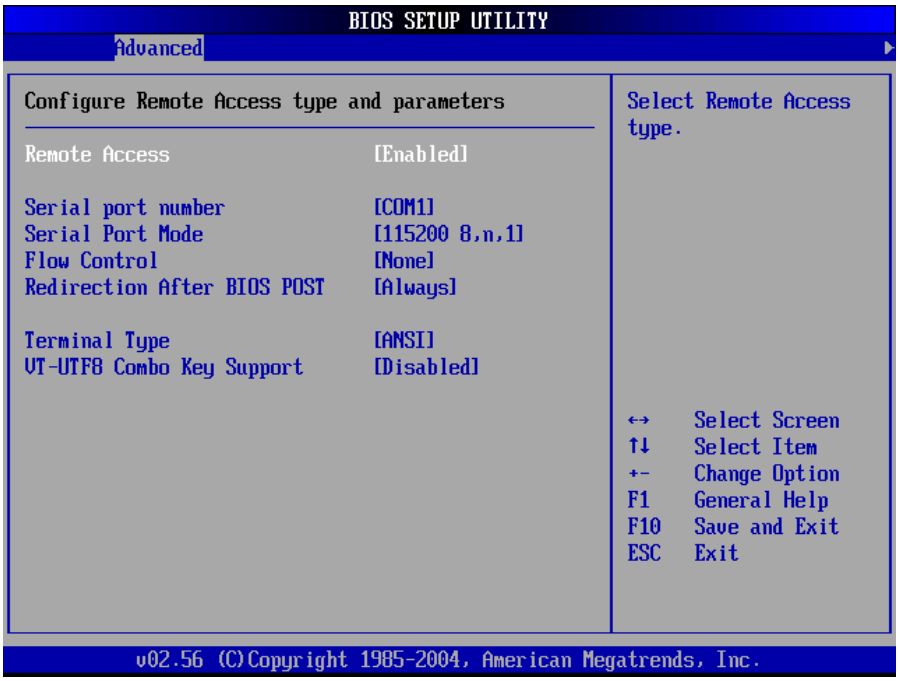
3.7.8 PCI Express Configuration

This menu allows you to enable or disable the PCI express link power states.
Configuration options: [Enable] [Disable]



3.7.9 Remote Access Configuration

This menu allows you to enable or disable Remote Access.
Configuration options: [Disabled] [Enabled]. If you choose [Enable], below sub menus will show up:



Serial port number [COM1]
This menu allows you to select the serial port for console redirection. Make sure the selected port is enabled.
Configuration options: [COM1] [COM2]

Serial Port Mode [115200 8,n,1]
This menu allows you to select serial port settings.
Configuration settings: [115200 8,n,1] [57600 8,n,1] [38400 8,n,1] [19200 8,n,1] [09600 8,n,1]

Flow Control [None]
This menu allows you to select flow control for console redirection
Configuration options: [None] [Hardware] [Software]

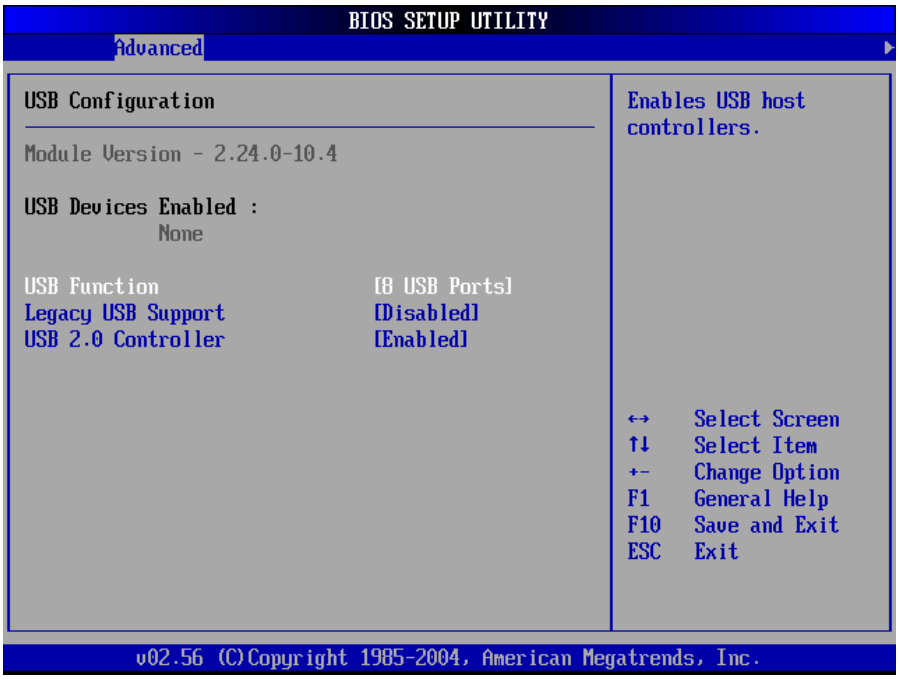
Redirection After BIOS POST
This menu allows you to set Redirection configuration after BIOS POST. You may turn off the redirection after POST [Disable] or set the Redirection to be active during POST and Boot Loader [Boot Loader] or to set the Redirection to be always active [Always]
Configuration options: [Disable] [Boot Loader] [Always]

Terminal Type [ANSI]
This menu allows you to select the target terminal type.
Configuration options: [ANSI] [VT100] [VT-UTF8]

VT-UTF8 Combo Key Support [Disabled]
This menu allows you to enable or disable VT-UTF8 combination key support for ANSI/VT100 terminals.
Configuration options: [Disabled] [Enabled]

3.7.10 USB Configuration

The items in this menu allow you to change the USB-related features.
Select an item then press Enter to display the configuration options.



USB Function [8 USB Ports]
Allow you to set the number of USB ports to activate.
Configuration options: [Disabled] [2 USB Ports] [4 USB Ports] [6 USB Ports] [8 USB Ports]

Legacy USB Support [Enable]
Enable support for legacy USB/ older USB devices.
Configuration options: [Disabled] [Enabled]

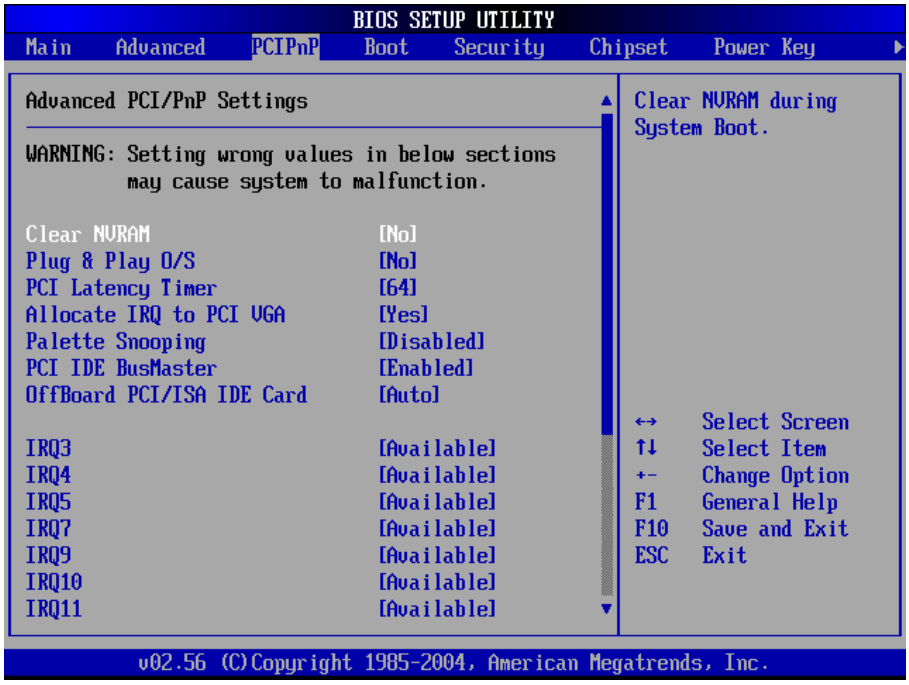
USB 2.0 Controller [Enabled]
Allow you to enable or disable the USB 2.0 controller.
Configuration options: [Disabled] [Enabled]

3.8 PCI PnP

The PCI PnP menu items allow you to change the advanced settings for PCI/PnP devices. The menu includes setting IRQ and DMA channel memory size block for legacy ISA devices.

WARNING!

- Don't do any change to the PCIPnP setting, unless you understand the impact thoroughly.
- Setting wrong values may cause system to malfunction.



Clear NVRAM [NO]
Clear NVRAM during system boot.

Plug & Play O/S [NO]
This menu is to configure whether or not the Operating System installed is Plug & Play aware. AMIBIOS detects and enables PnP card, which is required for system boot. Select [No] if the Operating System (like OS/2, DOS) does not support PnP.
Configuration options: [No] [Yes]

PCI Latency Timer [64]
This menu allows you to select the value in units of PCI clocks for the PCI device latency timer register.
Configuration options: [32] [64] [96] [128] [160] [192] [224] [248].

Allocate IRQ to PCI VGA [Yes]
When set to [Yes], BIOS assigns an IRQ to PCI VGA card if the card requests for an IRQ. When set to [No], BIOS does not assign an IRQ to the PCI VGA card even if requested.
Configuration options: [No] [Yes]

Palette Snooping [Disabled]
When set to [Enabled], the palette snooping feature informs the PCI devices that an ISA graphics device is installed in the system so that the device can function correctly. Setting to [Disabled] deactivates this feature.
Configuration options: [Disabled] [Enabled]

PCI IDE Bus Master [Disabled]
If set to [Enabled], AMIBIOS is allowed to use PCI bus mastering when reading/writing to IDE devices. Configuration options: [Disabled] [Enabled]

Off Board PCI/ISA IDE Card [Auto]
Some PCI IDE cards may require this to be set to the PCI slot number that is holding the card. It is to specify the PCI slot number where the off-board PCI IDE controller is installed.
Configuration options: [Auto] [PCI Slot1]~[PCI Slot6]

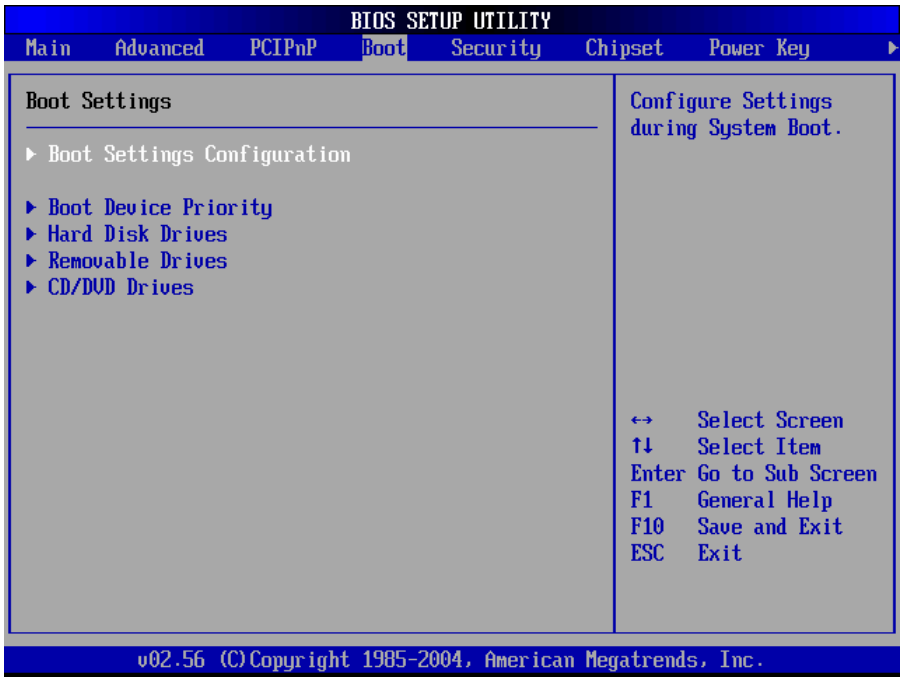
IRQ xx [Available]
When set to [Available], the specified IRQ is available for use by PCI/PnP devices. When set to [Reserved], the IRQ is reserved for legacy ISA devices.
Configuration options: [Available] [Reserved]

DMA Channel # [Available]
When set to [Available], the specified DMA is available for use by PCI/PnP devices. When set to [Reserved], the specified DMA is reserved for legacy ISA devices.

Reserved Memory Size [Disabled]
This is to set the size of memory block to be reserved for legacy USB devices.
Configuration options: [Disabled] [16k] [32k] [64k]

3.9 Boot

The Boot menu items allow you to change the system boot options. Select an item then press Enter to display the sub-menu.



Boot Settings Configuration
It is used to configure system boot setting with below submenus:

Quick Boot [Enabled]
Enabling this item allows BIOS to skip some Power On Self Tests (POST) while booting to decrease the time needed to boot the system. When set to [Disabled], BIOS performs all the POST items.
Configuration options: [Disabled] [Enabled]

Quiet Boot [Disabled]
This allows you to enable or disable the full screen logo display feature.
Configuration options: [Disabled] [Enabled]

LAN Boot ROM support [Disabled]
This allows you to enable or disable the LAN boot function.
Configuration options: [Disabled] [Enabled]

Add On ROM Display Mode [Force BIOS]
Sets the display mode for option ROM.
Configuration options: [Force BIOS] [Keep Current]

Bootup Num-Lock [On]
Allow you to select the power-on state for the NumLock.
Configuration options: [Off] [On]

PS/2 Mouse Support [Auto]
Allow you to enable or disable support for PS/2 mouse.
Configuration options: [Disabled] [Enabled] [Auto]

Wait for 'F1' If Error [Enabled]
When set to Enabled, the system waits for F1 key to be pressed when error occurs.
Configuration options: [Disabled] [Enabled]

Hit 'DEL' Message Display [Enabled]
When set to Enabled, the system displays the message 'Press DEL to run Setup' during POST.
Configuration options: [Disabled] [Enabled]

Interrupt 19 Capture [Disabled]
When set to [Enabled], this function allows the option ROMs to trap Interrupt 19.
Configuration options: [Disabled] [Enabled]

Boot Device Priority
This menu is used to specify the boot device priority sequence.

Hard Disk Drives
This menu is used to specify the boot device priority sequence from available Hard Disk Drives.

Removable Drives
This menu is used to specify the boot device priority sequence from available removable drives.

CD/DVD Drives
This menu is used to specify the boot device priority sequence from available CD/DVD drives.

3.10 Security

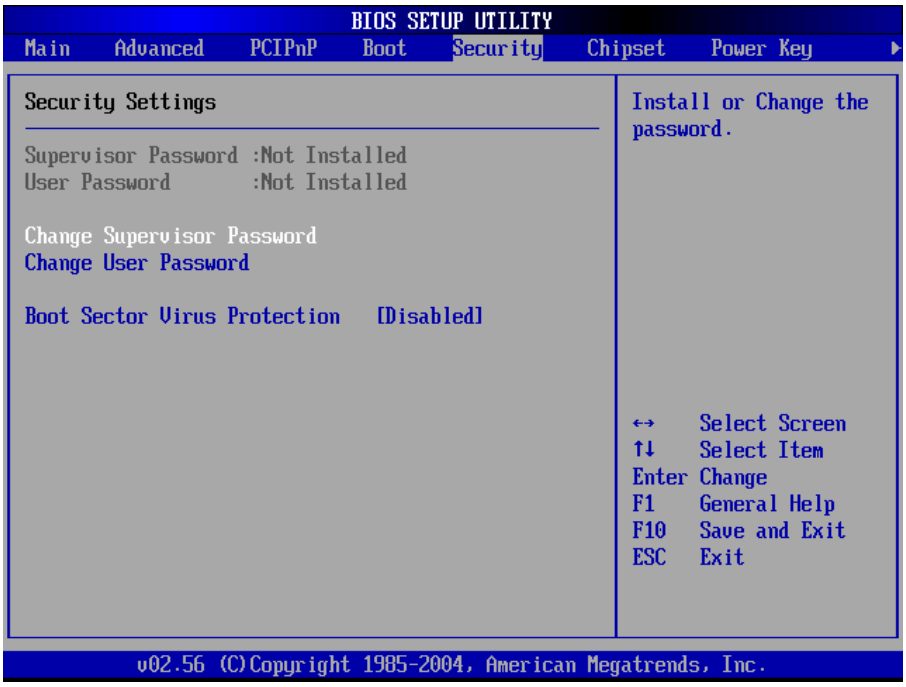
The Security menu items allow you to change the system security settings. Select an item then press Enter to display the configuration options.

Change Supervisor Password
Select this item to set or change the supervisor password. The Supervisor Password item on top of the screen shows the default Not Installed. After you have set a password, this item shows Installed.

Change User Password
Select this item to set or change the user password. The User Password item on top of the screen shows the default Not Installed. After you have set a password, this item shows Installed.

Boot Sector Virus Protection [Disabled]
Allow you to enable or disable the boot sector virus protection. If enabled, AMI BIOS will issue a warning when a virus or program attempts to write to the HDD's boot sector or attempts to execute Disk Format command. **Note:** you must disable this function when

formatting a HDD.
Configuration options: [Disabled] [Enabled]



3.11 Chipset

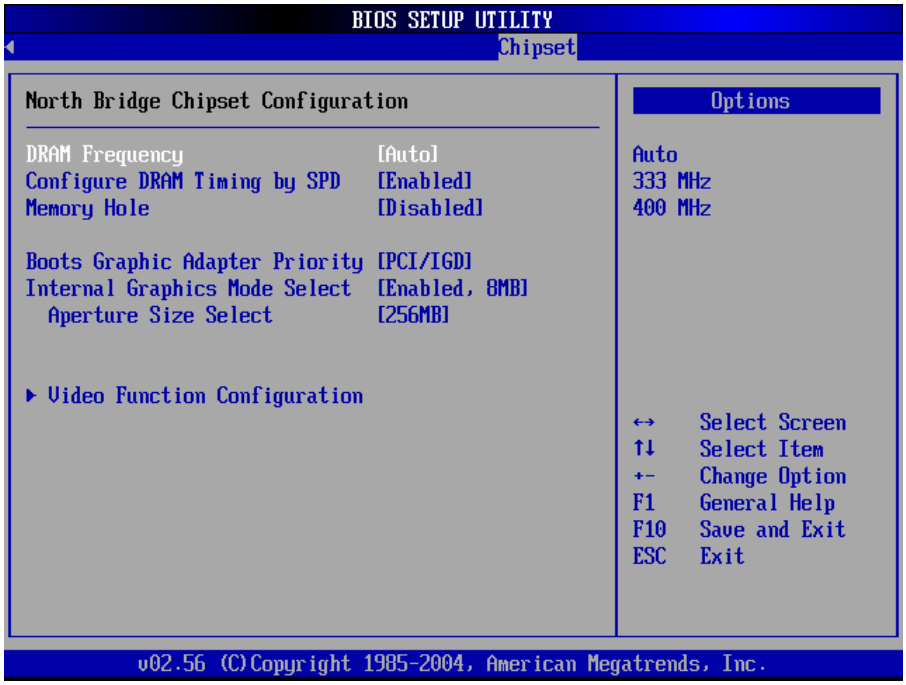
The Chipset menu items allow you to change the advanced chipset settings. Select an item then press Enter to display the sub-menu.

WARNING!

- Don't do any change to the Advanced Chipset Settings, unless you understand the impact thoroughly.
- Setting wrong values may cause system to malfunction.

BIOS SETUP UTILITY
Main Advanced PCIPnP Boot Security Chipset Power Key
Advanced Chipset Settings
WARNING: Setting wrong values in below sections may cause system to malfunction.
North Bridge Configuration
South Bridge Configuration
Configure North Bridge features.
↔ Select Screen
↑↓ Select Item
Enter Go to Sub Screen
F1 General Help
F10 Save and Exit
ESC Exit
v02.56 (C)Copyright 1985-2004, American Megatrends, Inc.

3.11.1 North Bridge Configuration



DRAM Frequency [Auto]
This menu allows you to configure DRAM Frequency.
Configuration options: [Auto] [333MHz] [400MHz]

Configure DRAM Timing by SPD [Enabled]
When this item is enabled, the DRAM timing parameters are set according to the DRAM SPD (Serial Presence Detect). When disabled, you can manually set the DRAM timing parameters through the DRAM sub-items.
Configuration options: [Disabled] [Enabled]

Memory Hole [Disabled]
Configuration options: [Disabled] [15MB-16MB]

Boots Graphic Adapter Priority [PCI / IGD]
Allows selection of the graphics controller to use as primary boot device.
Configuration options: [Internal VGA] [PCI/Int-VGA]

Internal Graphics Mode Select [Enable, 8MB]
Select the amount of system memory used by the internal graphics device.
Configuration options: [Enable, 1MB] [Enable, 4MB] [Enable, 8MB] [Enable, 16MB] [Enable, 32MB]

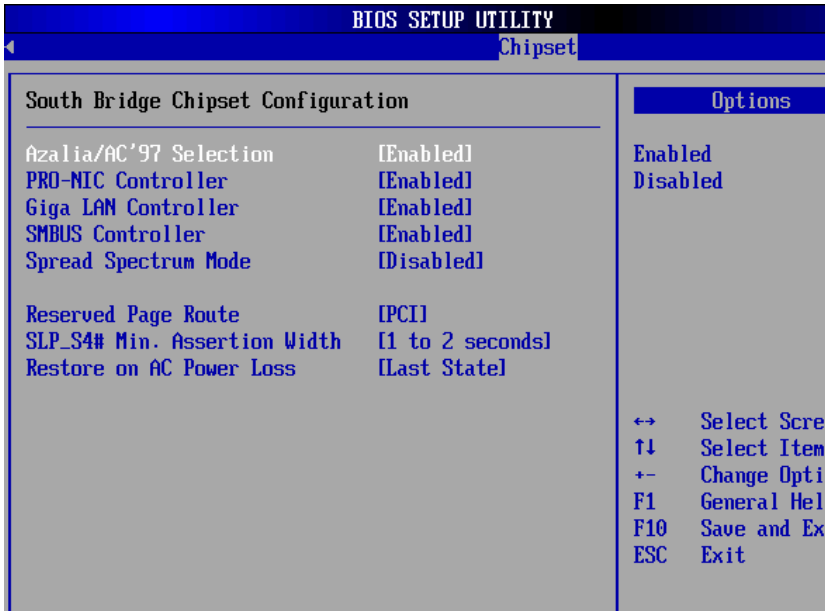
Aperture Size Select [256MB]
Allow you to select the size of mapped memory for AGP graphic data.
Configuration options: [4MB] [8MB] [16MB] [32MB] [64MB] [128MB] [256MB]

Video Function Configuration
DVMT Mode Select [Combo Mode]

Configuration options: [Fixed Mode][DVMT Mode][Combo Mode]

Boot Display Device [CRT+EFP]
Allow you to select the boot display device.
Configuration options: [CRT][EFP][CRT+EFP]

3.11.2 South Bridge Configuration



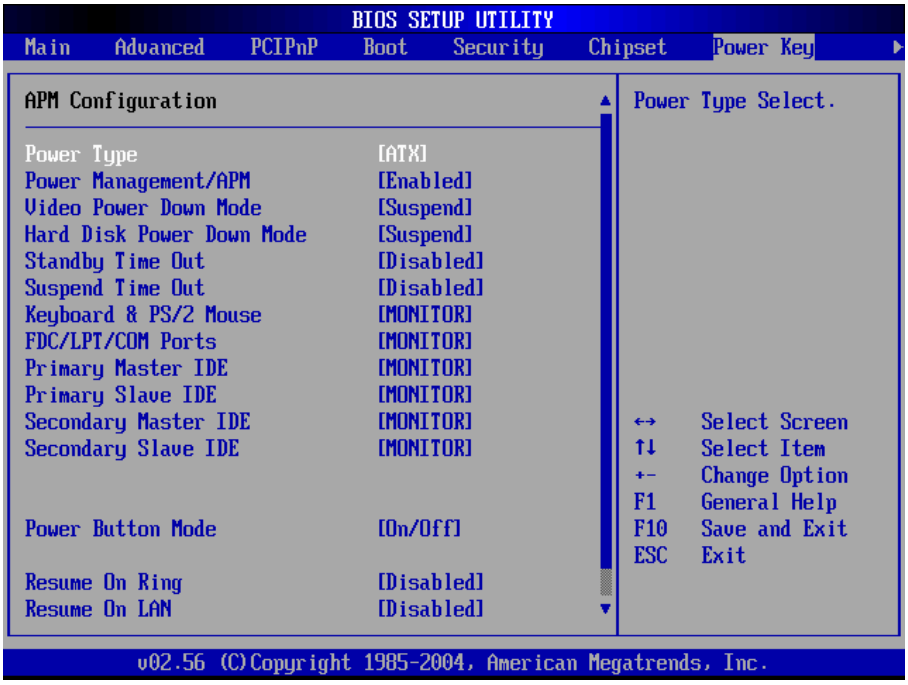
Azalia/AC'97 Selection [Enable]
Allow you to enable or disable the AC'97 Audio.
Configuration options: [Enable] [Disabled]

PRO-NIC Controller [Enable]
Allow you to enable or disable the onboard 10/100 LAN device.
Configuration options: [Enable] [Disabled]
Giga LAN Controller [Enable]
Allow you to enable or disable the onboard Giga LAN device.
Configuration options: [Enable] [Disabled]

Spread Spectrum Mode [Disable]
Allow you to enable or disable the spread spectrum modulation.
Configuration options: [Enable] [Disabled]

Restore on AC Power Loss [Last State]
When set to [Power Off], the system goes into off state after an AC power loss.
When set to [Power On], the system goes on after an AC power loss.
When set to [Last State], the system goes into either off or on state
Whatever the system was state before the AC power loss.
Configuration options: [Power Off] [Power On] [Last State]

3.12 Power



Power Type Select [ATX]
Allow you to select the power type mode.
Configuration options: [ATX] [AT]

Power Management/APM [Enabled]
Allow you to enable or disable the Advanced Power Management (APM) feature.
Configuration options: [Disabled] [Enabled]

Video Power Down Mode [Suspend]
Allow you to select the video power down mode.
Configuration options: [Disabled] [Standby] [Suspend]

Hard Disk Power Down Mode [Suspend]
Allow you to select the hard disk power down mode.
Configuration options: [Disabled] [Standby] [Suspend]

Standby Time Out [Disabled]
Allow you to select the specified time at which the system goes on standby.
Configuration options: [Disabled] [1 Min] [2 Min] [4 Min] [8 Min] [10 Min] [20 Min] [30 Min] [40 Min] [50 Min] [60 Min]

Suspend Time Out [Disabled]
Allow you to select the specified time at which the system goes on suspend.
Configuration options: [Disabled] [1 Min] [2 Min] [4 Min] [8 Min] [10 Min] [20 Min] [30 Min] [40 Min] [50 Min] [60 Min]

Power Button Mode [On/Off]
Allows the system to go into On/Off mode or suspend mode when the power button is

pressed.
Configuration options: [On/Off] [Suspend]

Resume On Ring [Disabled]
Allow you to enable or disable RI to generate a wake event.
Configuration options: [Disabled] [Enabled]

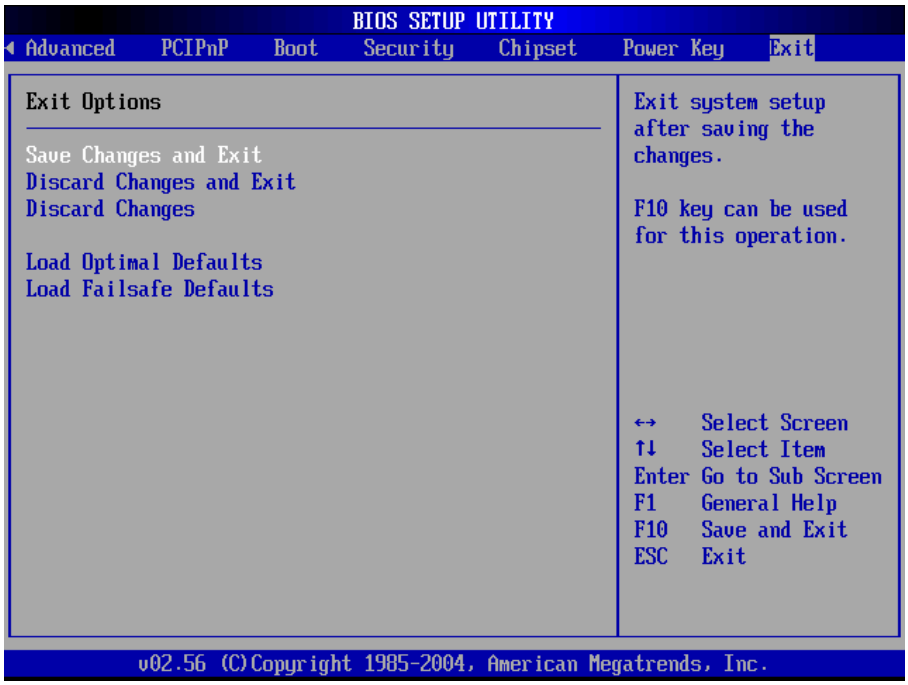
Resume On LAN [Disabled]
Allow you to enable or disable LAN GPI to generate a wake event.
Configuration options: [Disabled] [Enabled]

Resume On PME# [Disabled]
Allows you to enable or disable PCI PME# to generate a wake event.
Configuration options: [Disabled] [Enabled]

Resume On RTC Alarm [Disabled]
Allow you to enable or disable RTC to generate a wake event. When this item is set to Enabled, the items RTC Alarm Date, RTC Alarm Hour, RTC Alarm Minute, and RTC Alarm Second appear with set values.
Configuration options: [Disabled] [Enabled]

3.13 Exit

The Exit menu items allow you to load the optimal or failsafe default values for the BIOS items, and save or discard your changes to the BIOS items.


BIOS SETUP UTILITY
Advanced PCIPnP Boot Security Chipset Power Key Exit
Exit Options
Save Changes and Exit
Discard Changes and Exit
Discard Changes
Load Optimal Defaults
Load Failsafe Defaults
Exit system setup after saving the changes.
F10 key can be used for this operation.
↔ Select Screen
↑↓ Select Item
Enter Go to Sub Screen
F1 General Help
F10 Save and Exit
ESC Exit
v02.56 (C)Copyright 1985-2004, American Megatrends, Inc.

Save Changes and Exit
Once you are finished making your selections, choose this option from the Exit menu to ensure the values you selected are saved to the CMOS RAM. The CMOS RAM is sustained by an onboard backup battery and stays on even when the PC is turned off. When you select this option, a confirmation window appears.
Select [Yes] to save changes and exit.

Discard Changes and Exit
Select this option only if you do not want to save the changes that you made to the Setup program. If you made changes to fields other than system date, system time, and password, the BIOS asks for a confirmation before exiting.

Discard Changes
This option allows you to discard the selections you made and restore the previously saved values. After selecting this option, a confirmation appears. Select [Yes] to discard any changes and load the previously saved values.

Load Optimal Defaults
This option allows you to load optimal default values for each of the parameters on the Setup menus, which will provide the best performance settings for your system. F9 key can be used for this operation.

Load Failsafe Defaults
This option allows you to load failsafe default values for each of the parameters on the Setup menus, which will provide the most stable performance settings. F8 key can be used for this operation.

Chapter

4

Chipset Software Installation

4.1 Before you begin

To facilitate the installation of the enhanced display device drivers and utility software, you should read the instructions in this chapter carefully before you attempt installation. The device drivers for the WSB-9150 board are located on the software installation CD. The auto-run function of the driver CD will guide and link you to the utilities and device drivers under a Windows system. The Intel Chipset Software Installation Utility is not required on any systems running Windows NT 4.0. Updates are provided via Service Packs from Microsoft.

NOTE:

The files on the software installation CD are compressed. Do not attempt to install the drivers by copying the files manually. You must use the supplied SETUP program to install the drivers.

Before you begin, it is important to note that most display drivers need to have the relevant software application already installed in the system prior to installing the enhanced display drivers. In addition, many of the installation procedures assume that you are familiar with both the relevant software applications and operating system commands. Review the relevant operating system commands and the pertinent sections of your application software's user's manual before performing the installation.

4.2 Introduction

The Intel Chipset Software Installation (CSI) utility installs to the target system the Windows INF files that outline to the operating system how the chipset components will be configured. This is needed for the proper functioning of the following features:

- Core PCI and ISA PnP services
- AGP support
- IDE Ultra ATA 100/66/33 interface support
- USB 1.1 support (USB 2.0 driver needs to be installed separately)
- Identification of Intel chipset components in the Device Manager
- Integrates superior video features. These include filtered sealing of 720 pixel DVD content, and MPEG-2 motion compensation for software DVD

NOTE:

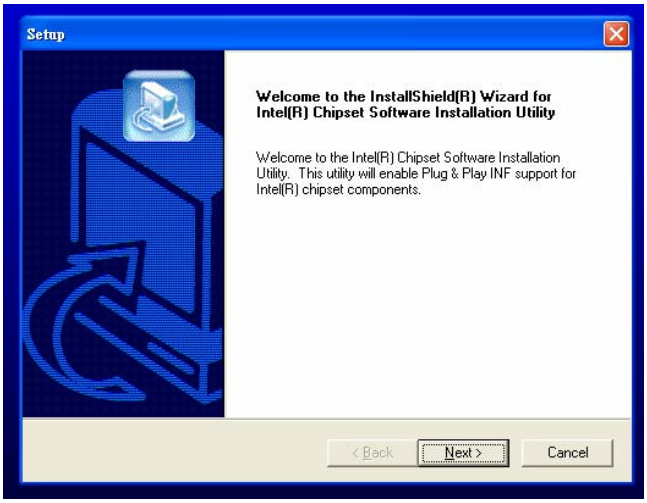
This utility is used for the following versions of Windows system, and it has to be installed before installing all the other drivers:

- *Windows 98SE*
- *Windows 2000*
- *Windows Me*
- *Windows XP*

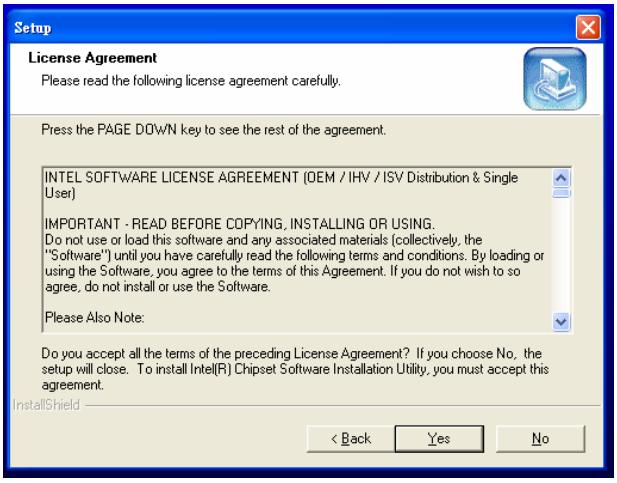
4.3 Windows XP Driver Setup

1. Insert the driver CD into your system's CD-ROM drive. In a few seconds, the software installation main menu appears. Move the mouse cursor over the "Auto" button under the "CSI UTILITY" heading, a message pops up telling you to install the CSI utility before other device drivers. Click on this button. Taking Windows XP as example.

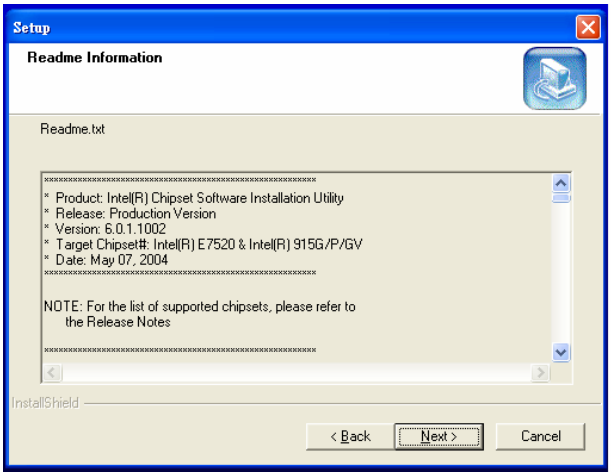
2. Click "Next" when you see the following message.


Setup
Welcome to the InstallShield(R) Wizard for Intel(R) Chipset Software Installation Utility
Welcome to the Intel(R) Chipset Software Installation Utility. This utility will enable Plug & Play INF support for Intel(R) chipset components.
< Back
Next >
Cancel

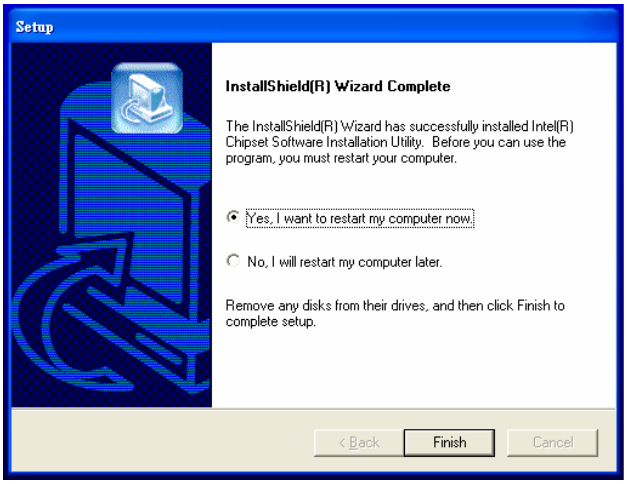
3. Click "Yes" when you see the following message.


Setup
License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single User)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
Please Also Note:
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install Intel(R) Chipset Software Installation Utility, you must accept this agreement.
InstallShield
< Back
Yes
No

4. Click "Next" when you see the following message.


Setup
Readme Information
Readme.txt
* Product: Intel(R) Chipset Software Installation Utility
* Release: Production Version
* Version: 6.0.1.1002
* Target Chipset#: Intel(R) E7520 & Intel(R) 915G/P/GV
* Date: May 07, 2004
NOTE: For the list of supported chipsets, please refer to the Release Notes
InstallShield
< Back
Next >
Cancel

5. When the following message appears, click "Finish" to complete the installation and restart Windows.


Setup
InstallShield(R) Wizard Complete
The InstallShield(R) Wizard has successfully installed Intel(R) Chipset Software Installation Utility. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish
Cancel

Chapter

5

VGA Setup

5.1 Introduction

The WSB-9150 has VGA onboard, you need to install the VGA driver to enable the function.

The Intel 915GV Express chipset, designed for the Intel Pentium 4 processor supporting Hyper-Threading Technology, in the LGA775 package, delivers a decade's worth of innovation:

- Intel Graphics Media Accelerator (GMA) 900, which supports widescreen LCD displays and accelerated DirectX* 9
- Intel High Definition Audio and Intel Matrix Storage Technology integrated into the chipset
- Flexible memory support for both dual channels DDR2 533 memory, which can deliver up to 8.5 GB/s bandwidth

5.2 Windows XP Driver Setup

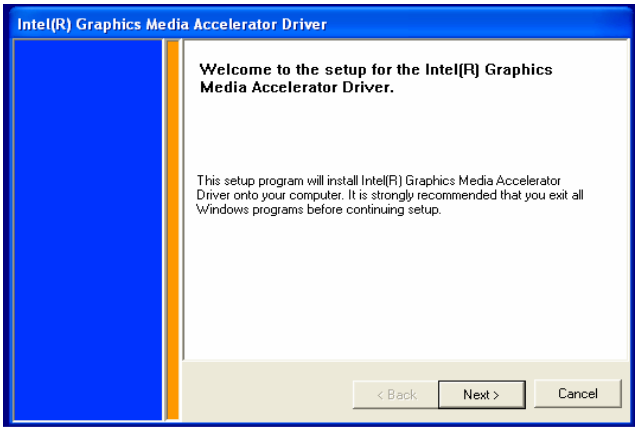
NOTE:

Before installing this driver, make sure the CSI utility has been installed in your system. See ***Chapter 4*** for information on installing the CSI utility.

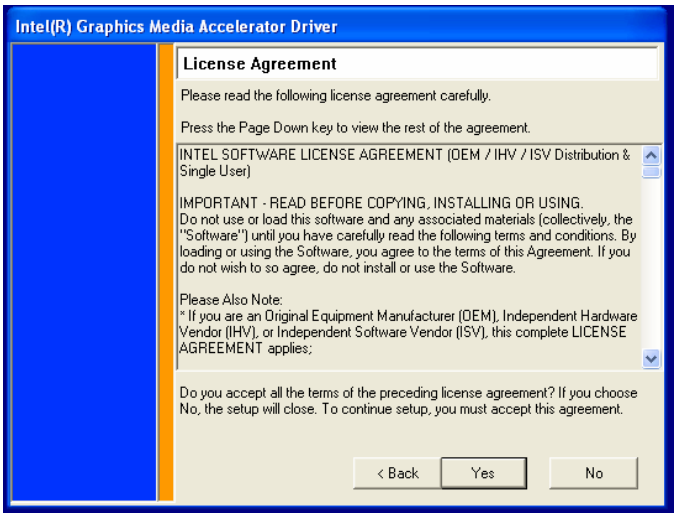
Insert the driver CD into your system's CD-ROM drive. In a few seconds, the software installation main menu appears, as shown in the following figure. Under the "VGA DRIVERS" heading, click on one of the buttons (labeled "W2K XP", "WIN9X ME", and "WIN NT" respectively) according to the operating system you are using. The following installation procedure is for Windows XP. For other operating systems, please follow the on-screen installation guide.

Installation Steps:

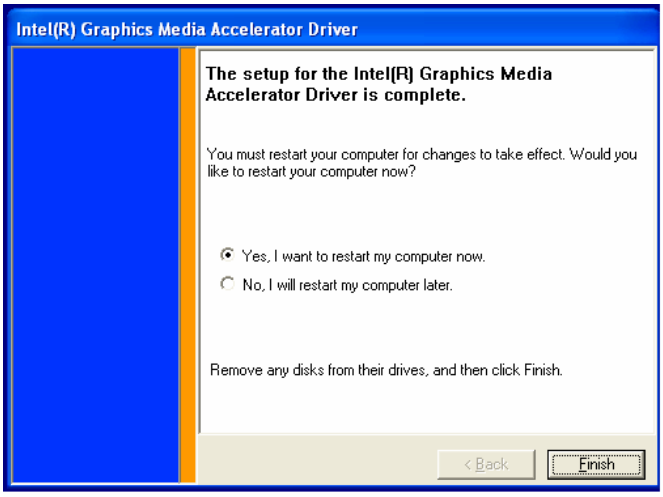
1. You will see a welcome window. Please chick on "Next" to continue the installation.


Intel(R) Graphics Media Accelerator Driver
Welcome to the setup for the Intel(R) Graphics Media Accelerator Driver.
This setup program will install Intel(R) Graphics Media Accelerator Driver onto your computer. It is strongly recommended that you exit all Windows programs before continuing setup.
< Back
Next >
Cancel

2. Click "Yes" when you see the following message.


Intel(R) Graphics Media Accelerator Driver
License Agreement
Please read the following license agreement carefully.
Press the Page Down key to view the rest of the agreement.
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single User)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
Please Also Note:
* If you are an Original Equipment Manufacturer (OEM), Independent Hardware Vendor (IHV), or Independent Software Vendor (ISV), this complete LICENSE AGREEMENT applies;
Do you accept all the terms of the preceding license agreement? If you choose No, the setup will close. To continue setup, you must accept this agreement.
< Back
Yes
No

3. Click "Finish" to complete the installation and restart the computer now or later.


Intel(R) Graphics Media Accelerator Driver
The setup for the Intel(R) Graphics Media Accelerator Driver is complete.
You must restart your computer for changes to take effect. Would you like to restart your computer now?
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish.
< Back
Finish

Chapter

6

LAN Configuration

6.1 Introduction

The WSB-9150 features the 32-bit 10/100/1000 Mbps Ethernet network interface. This interface supports bus mastering architecture and auto-negotiation features. Therefore standard twisted-pair cabling with RJ-45 connectors for 10 Mbps, 100 Mbps and 1000 Mbps connections can be used. Extensive driver support for commonly used network systems is also provided.

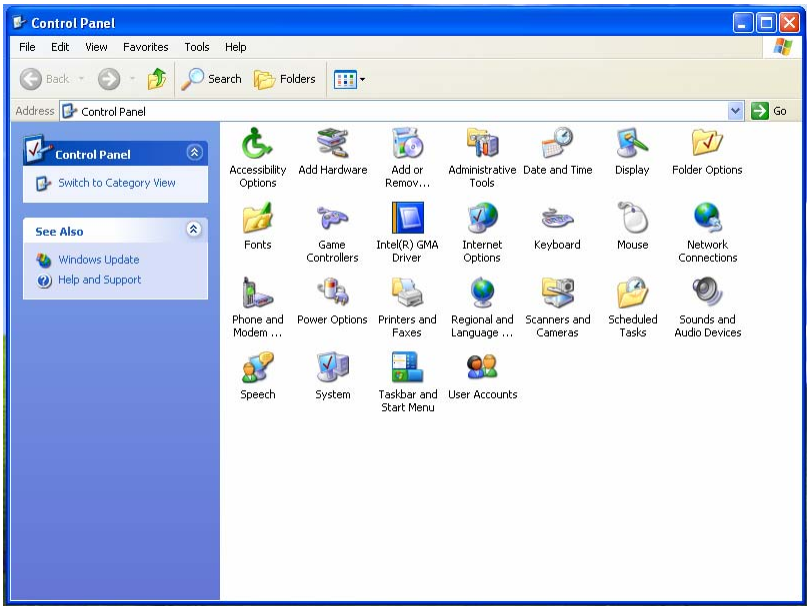
6.2 Windows XP Driver Setup

NOTE:

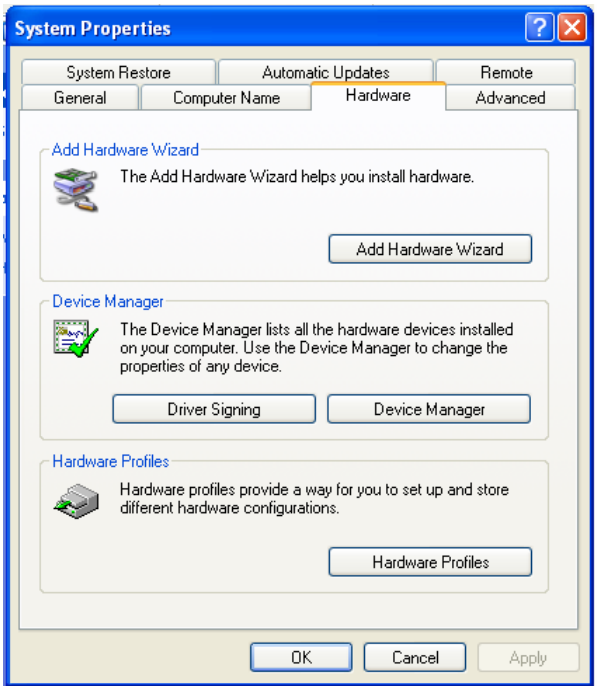
Before installing the LAN drivers, make sure the CSI utility has been installed in your system. See ***Chapter 4*** for information on installing the CSI utility.

The WSB-9150's onboard Ethernet interface supports all major network operating systems. However, the installation procedure varies with different operating systems. In the following sections, refer to the one that provides driver setup procedure for the operating system you are using.

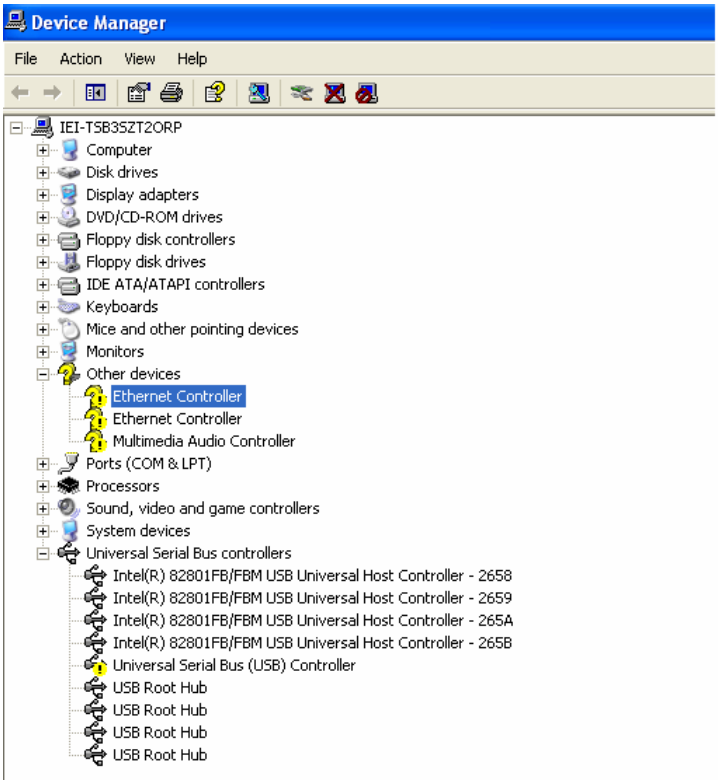
1. From Windows XP, select Start and click on Control Panel. In the window of Control Panel, click on icon System.



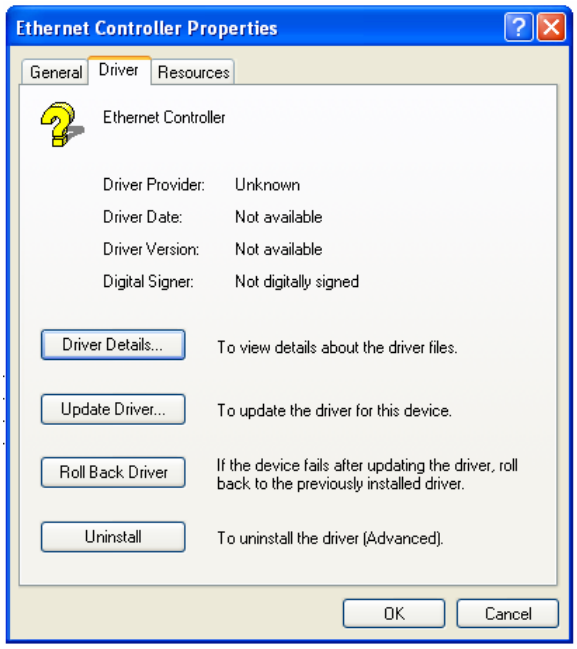
2. Choose the option "Hardware", and then click on "Device Manager."



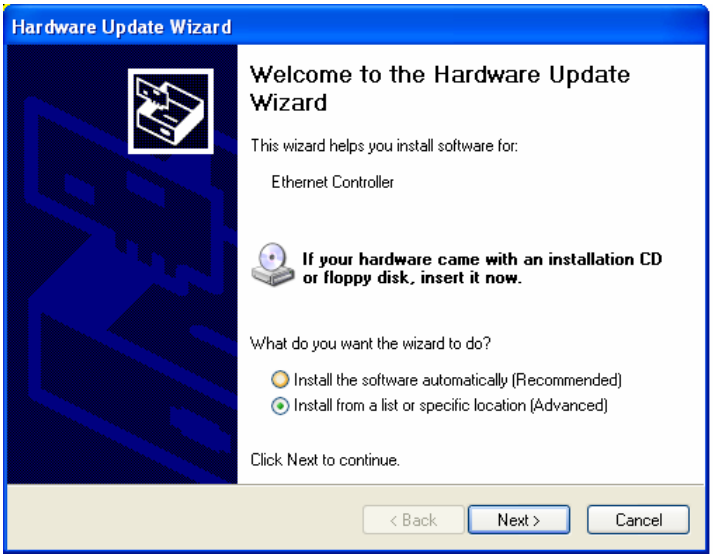
3. In Device Manager, choose "Ethernet Controller" and then double click.


Device Manager
File Action View Help
IEI-TSB3SZT2ORP
Computer
Disk drives
Display adapters
DVD/CD-ROM drives
Floppy disk controllers
Floppy disk drives
IDE ATA/ATAPI controllers
Keyboards
Mice and other pointing devices
Monitors
Other devices
Ethernet Controller
Ethernet Controller
Multimedia Audio Controller
Ports (COM & LPT)
Processors
Sound, video and game controllers
System devices
Universal Serial Bus controllers
Intel(R) 82801FB/FBM USB Universal Host Controller - 2658
Intel(R) 82801FB/FBM USB Universal Host Controller - 2659
Intel(R) 82801FB/FBM USB Universal Host Controller - 265A
Intel(R) 82801FB/FBM USB Universal Host Controller - 265B
Universal Serial Bus (USB) Controller
USB Root Hub
USB Root Hub
USB Root Hub
USB Root Hub

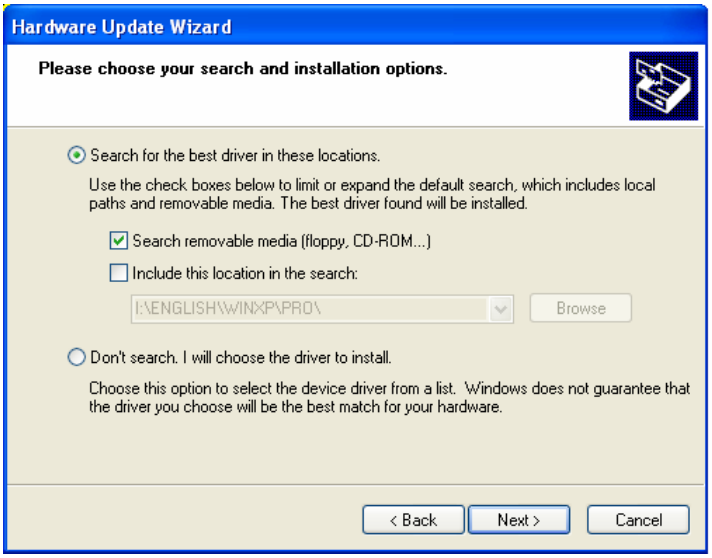
4. Choose the option "Driver" and then click on "Update Driver".



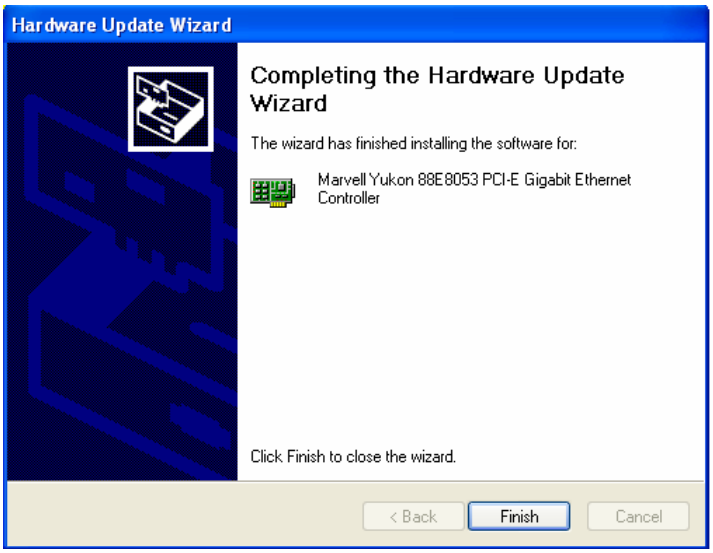
5. In Hardware Update Wizard, choose "Install from a list or specific location (Advanced)" and then click on " Next".


Hardware Update Wizard
Welcome to the Hardware Update Wizard
This wizard helps you install software for:
Ethernet Controller
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

6. Tick "Search removable media (floppy, CD-ROM…)" and click "Next".


Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
I:\ENGLISH\WINXP\PRO\
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

7. In the following window, please click on "Finish" to complete USB driver installation.


Hardware Update Wizard
Completing the Hardware Update Wizard
The wizard has finished installing the software for:
Marvell Yukon 88E8053 PCI-E Gigabit Ethernet Controller
Click Finish to close the wizard.
< Back
Finish
Cancel

Chapter

7

USB 2.0 Configuration

7.1 Introduction

The WSB-9150 is designed with Intel ICH6 that supports both USB1.1 and USB 2.0 high-speed transmission. It still remains the compatibility with today's USB device. High-speed USB 2.0 provides data transfer up to 480Mb/s which is 40 times faster than USB 1.1. It is ideal for today's speed-demanding I/O peripherals.

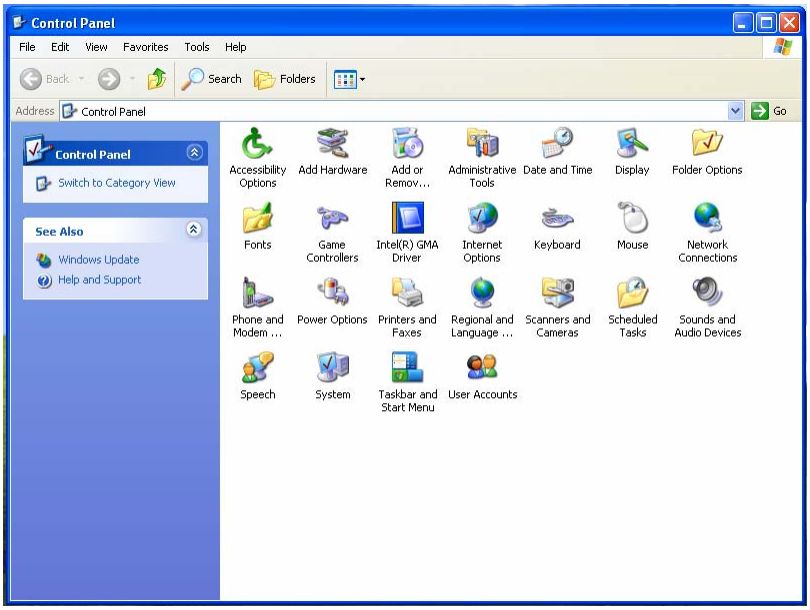
- Provides data transmission rate up to 480Mb/s
- Offer 40 greater bandwidth than USB 1.1
- Offers complete compatibility with current USB device

7.2 Installation

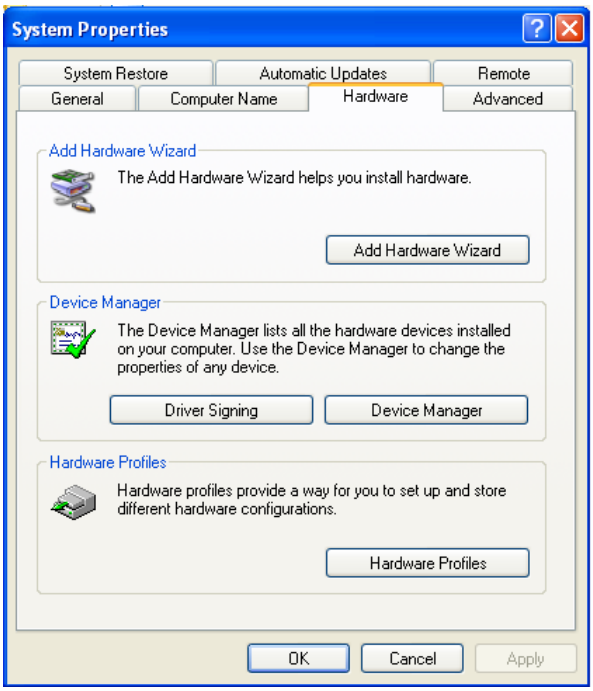
NOTE:

1. Before installing the LAN drivers, make sure the CSI utility has been installed in your system. See ***Chapter 4*** for information on installing the CSI utility.
2. USB 2.0 driver is not available for Windows 98SE/ME from WSB-9150 driver CD. Under these operating systems, the USB device will operate at USB 1.1 speeds.

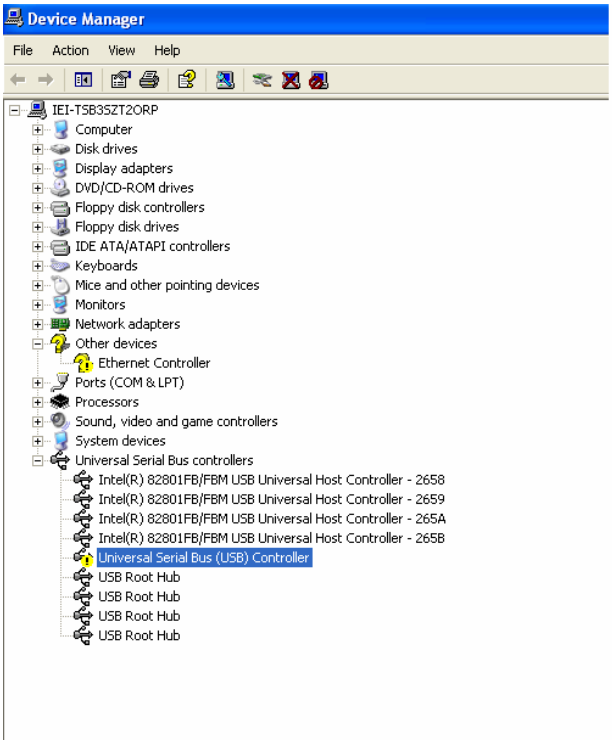
1. From Windows XP, select Start and click on Control Panel. In the window of Control Panel, click on icon System.



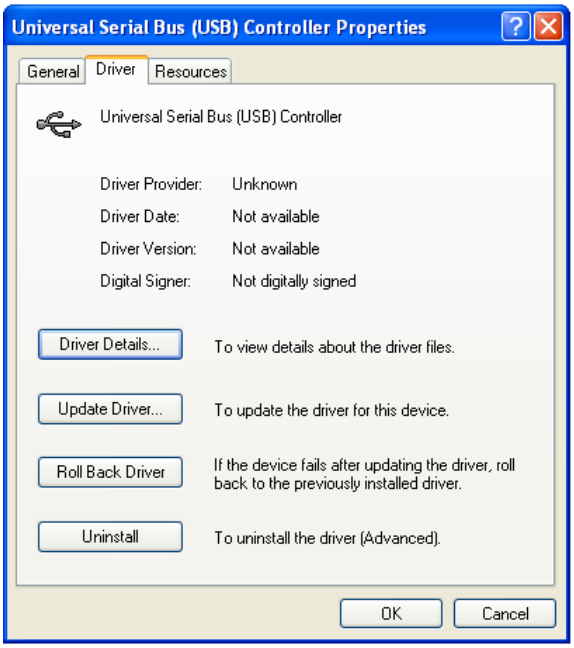
2. Choose the option "Hardware", and then click on "Device Manager."



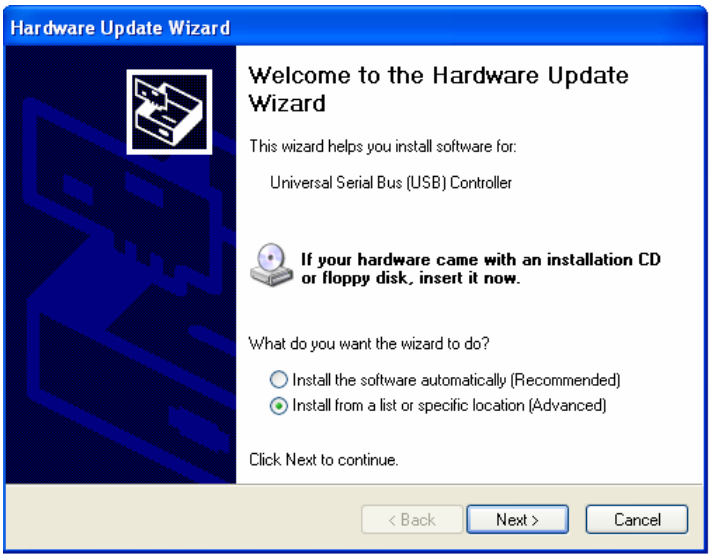
3. In Device Manager, choose "USB Controller" and then double click.


Device Manager
File
Action
View
Help
IEI-TSB3SZT2ORP
Computer
Disk drives
Display adapters
DVD/CD-ROM drives
Floppy disk controllers
Floppy disk drives
IDE ATA/ATAPI controllers
Keyboards
Mice and other pointing devices
Monitors
Network adapters
Other devices
Ethernet Controller
Ports (COM & LPT)
Processors
Sound, video and game controllers
System devices
Universal Serial Bus controllers
Intel(R) 82801FB/FBM USB Universal Host Controller - 2658
Intel(R) 82801FB/FBM USB Universal Host Controller - 2659
Intel(R) 82801FB/FBM USB Universal Host Controller - 265A
Intel(R) 82801FB/FBM USB Universal Host Controller - 265B
Universal Serial Bus (USB) Controller
USB Root Hub
USB Root Hub
USB Root Hub
USB Root Hub

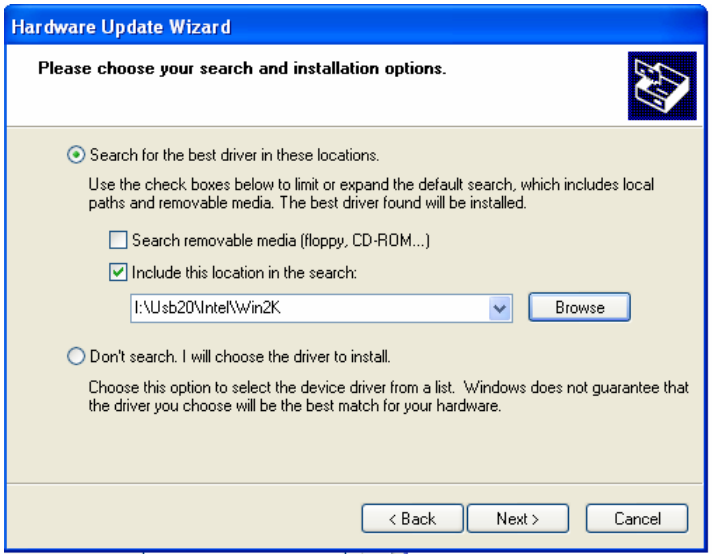
4. Choose the option "Driver" and then click on "Update Driver".



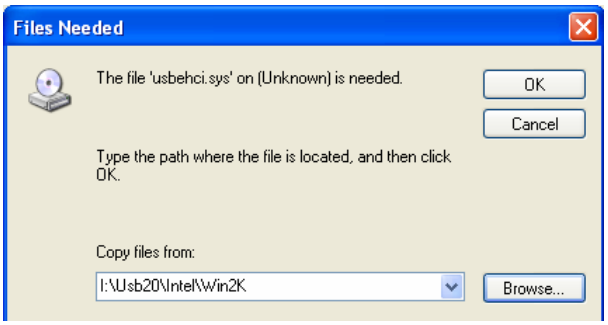
5. In Hardware Update Wizard, choose "Install from a list or specific location (Advanced)" and then click on " Next."


Hardware Update Wizard
Welcome to the Hardware Update Wizard
This wizard helps you install software for:
Universal Serial Bus (USB) Controller
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

6. Tick "Include this location in the search" and click "Next".


Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
I:\Usb20\Intel\Win2K
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

7. In the following windows, please specify the location "D:\USB20\Intel\WinXP" and then click on "OK".



8. In the following window, please click on "Finish" to complete USB driver installation.

Upgrade Device Driver Wizard
Completing the Upgrade Device Driver Wizard
USB 2.0 Root Hub
Windows has finished installing the software for this device.
To close this wizard, click Finish.
Finish

Appendix

A

Watchdog Timer

The Watchdog Timer is provided to ensure that standalone systems can always recover from catastrophic conditions that cause the CPU to crash. This condition may have occurred by external EMI or a software bug. When the CPU stops working correctly, Watchdog Timer will either perform a hardware reset (cold boot) or a Non-Maskable Interrupt (NMI) to bring the system back to a known state.

A BIOS function call (INT 15H) is used to control the Watchdog Timer:

INT 15H:

AH – 6FH Sub-function:	
AL – 2:	Sets the Watchdog Timer's period.
BL:	Time-out value (Its unit-second is dependent on the item "Watchdog Timer unit select" in CMOS setup).

You have to call sub-function 2 to set the time-out period of Watchdog Timer first. If the time-out value is not zero, the Watchdog Timer will start counting down. While the timer value reaches zero, the system will reset. To ensure that this reset condition does not occur, calling sub-function 2 must periodically refresh the Watchdog Timer. However, the Watchdog timer will be disabled if you set the time-out value to be zero.

A tolerance of at least 10% must be maintained to avoid unknown routines within the operating system (DOS), such as disk I/O that can be very time-consuming.

NOTE:

When exiting a program it is necessary to disable the Watchdog Timer, otherwise the system will reset.

Example program:

```
; INITIAL TIMER PERIOD COUNTER
;
W_LOOP:

        MOV     AX, 6F02H       ;setting the time-out value
        MOV     BL, 30          ;time-out value is 48 seconds
        INT      15H
 ;
; ADD YOUR APPLICATION PROGRAM HERE
;
        CMP      EXIT_AP, 1          ;is your application over?
        JNE      W_LOOP         ;No, restart your application

         MOV     AX, 6F02H       ;disable Watchdog Timer
         MOV     BL, 0           ;
         INT      15H
;
; EXIT ;
```

Appendix

B

Address Mapping

B.1 IO Address Map

I/O address Range	Description
000-01F	DMA Controller
020-021	Interrupt Controller
040-043	System time
060-06F	Keyboard Controller
070-07F	System CMOS/Real time Clock
080-09F	DMA Controller
0A0-0A1	Interrupt Controller
0C0-0DF	DMA Controller
0F0-0FF	Numeric data processor
1F0-1F7	Primary IDE Channel
2F8-2FF	Serial Port 2 (COM2)
378-37F	Parallel Printer Port 1 (LPT1)
3B0-3BB	Intel(R) 82915 Graphics Controller
3C0-3DF	Intel(R) 82915 Graphics Controller
3F6-3F6	Primary IDE Channel
3F7-3F7	Standard floppy disk controller
3F8-3FF	Serial Port 1 (COM1)

B.2 1st MB Memory Address Map

Memory address	Description
00000-9FFFF	System memory
A0000-BFFFF	VGA buffer
F0000-FFFFF	System BIOS
1000000-	Extend BIOS

B.3 IRQ Mapping Table

IRQ0	System Timer	IRQ8	RTC clock
IRQ1	Keyboard	IRQ9	ACPI
IRQ2	Available	IRQ10	LAN
IRQ3	COM2	IRQ11	LAN/USB2.0/SATA
IRQ4	COM1	IRQ12	PS/2 mouse
IRQ5	SMBus Controller	IRQ13	FPU
IRQ6	FDC	IRQ14	Primary IDE
IRQ7	Available	IRQ15	Secondary IDE

B.4 DMA Channel Assignments

Channel	Function
0	Available
1	Available
2	Floppy disk (8-bit transfer)
3	Available
4	Cascade for DMA controller 1
5	Available
6	Available
7	Available

Appendix

C

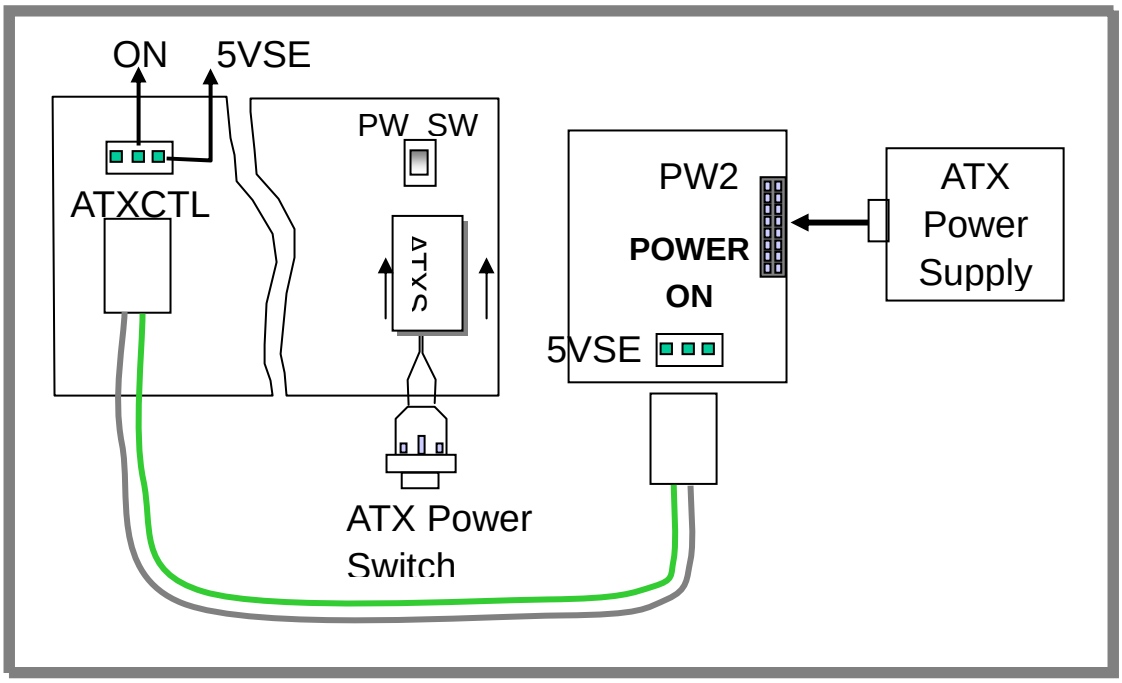
ATX Power Supply

The following notes show how to connect ATX Power Supply to the backplanes and / or the ISBC card.

1. Using ATX Power Switch

Step 1. Disconnect the AC cord of the Power Supply from the AC source to prevent sudden electric surge to the board.

(Through Power Button and GND)



Step 2. Connect the ATX power button switch to the PW_SW (power button). And connect the power cable from Backplane to ATXCTL connector of CPU card.

Step 3. To turn on the system press the button once. To turn off the power supply press the ATX power switch button for about 4 seconds.

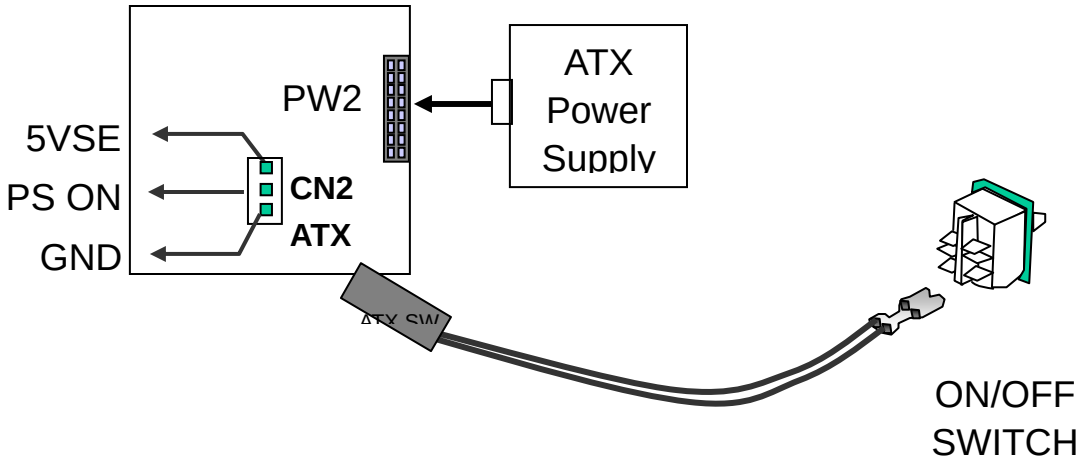
2. Using AT Power Switch

You can also control ATX power supply through the PS ON connector of backplane.

Step 1. Install WSB-9150 on the backplane.

Step 2. Connect the ON/OFF (ordinary one) switch to Pin 2 (PS ON) and Pin 3 (GND) of connector CN2.

Step 3. You may now turn the power ON/OFF by the power switch.



Appendix

D

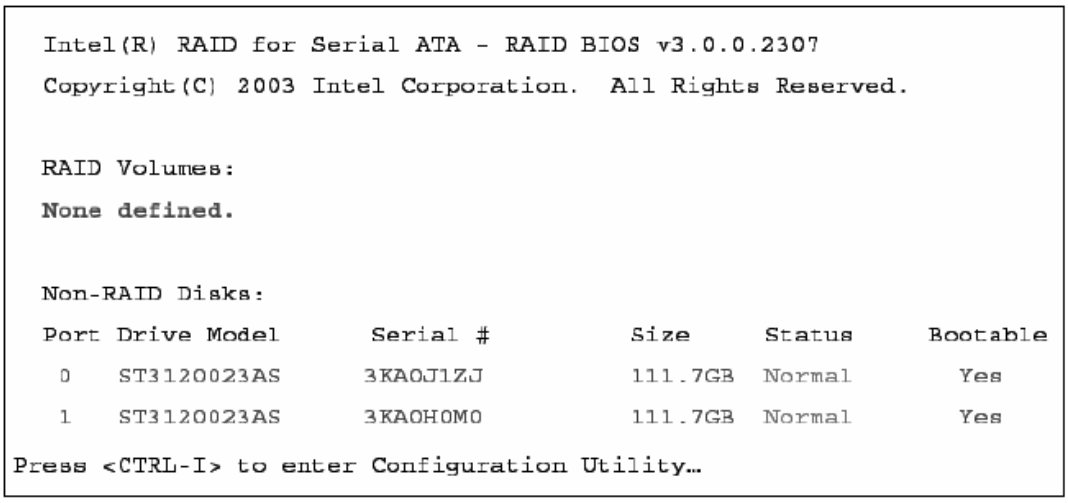
Intel® RAID for SATA Configuration

The Intel RAID Option ROM should be integrated with the system BIOS on all motherboards with a supported Intel chipset. The Intel RAID Option ROM is the Intel RAID implementation and provides BIOS and DOS disk services. Please use <Ctrl> + <I> keys to enter the "Intel(R) RAID for Serial ATA" status screen, which should appear early in system boot-up, during the POST (Power-On Self Test).

Using the Intel RAID Option ROM

1. Creating, Deleting and Resetting RAID Volumes:

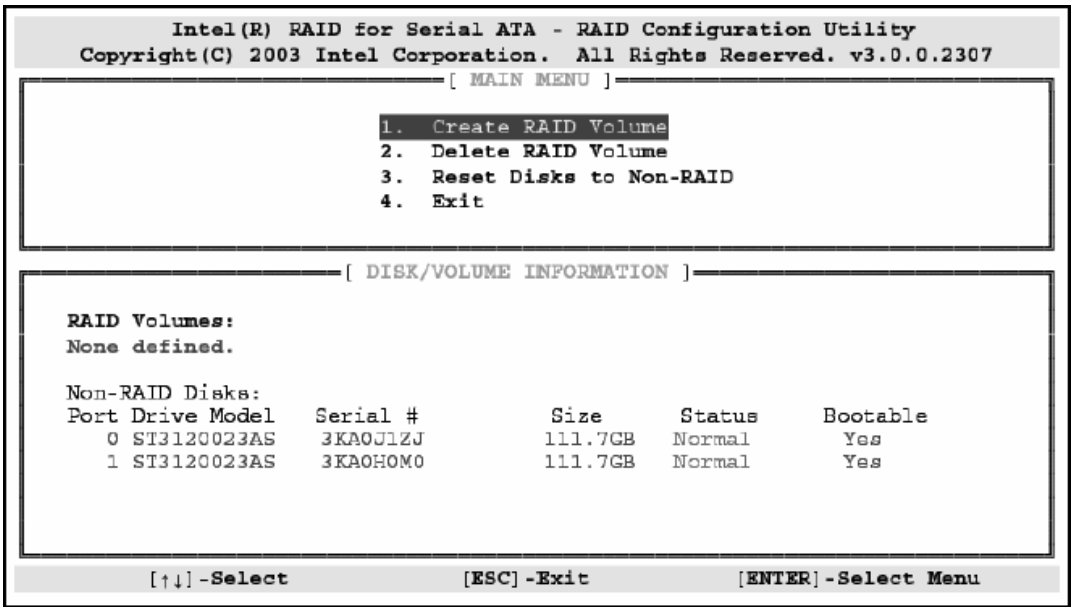
The Serial ATA RAID volume may be configured using the RAID Configuration utility stored within the Intel RAID Option ROM. During the Power-On Self Test (POST), the following message will appear for a few seconds:


Intel(R) RAID for Serial ATA - RAID BIOS v3.0.0.2307
Copyright(C) 2003 Intel Corporation. All Rights Reserved.
RAID Volumes:
None defined.
Non-RAID Disks:
Port Drive Model Serial # Size Status Bootable
0 ST3120023AS 3KA0J1ZJ 111.7GB Normal Yes
1 ST3120023AS 3KA0H0M0 111.7GB Normal Yes
Press <CTRL-I> to enter Configuration Utility…

After the above message shows, press <Ctrl> and <I> keys simultaneously to enter the RAID Configuration Utility.

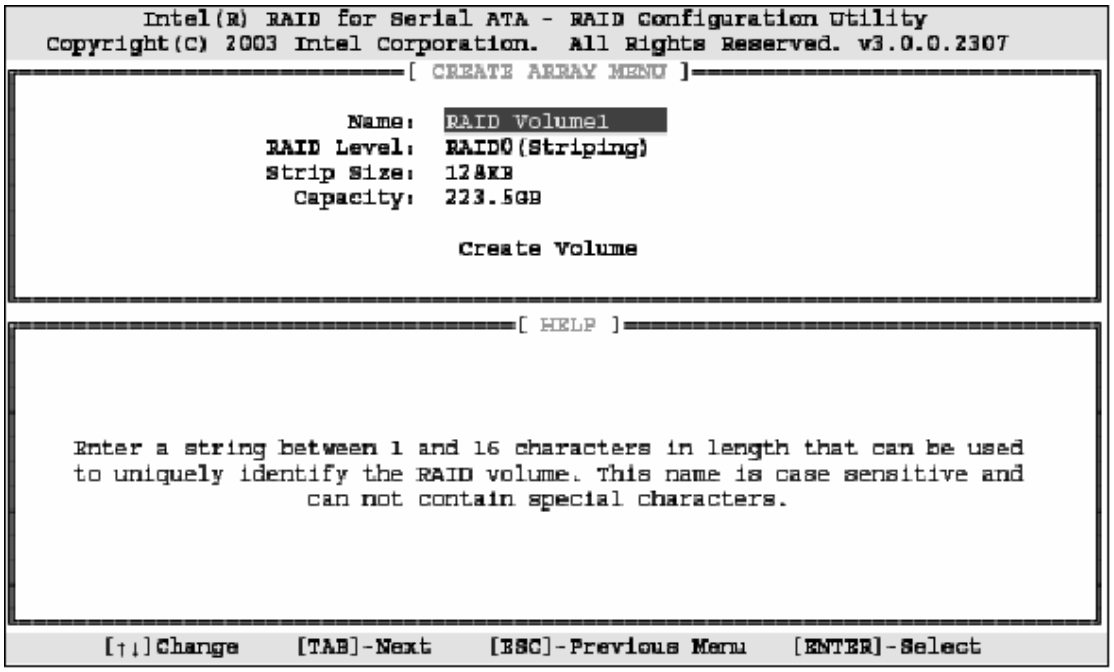
2. Creating, Deleting and Resetting RAID Volumes:

After pressing the <Ctrl> and <I> keys simultaneously, the following window will appear:

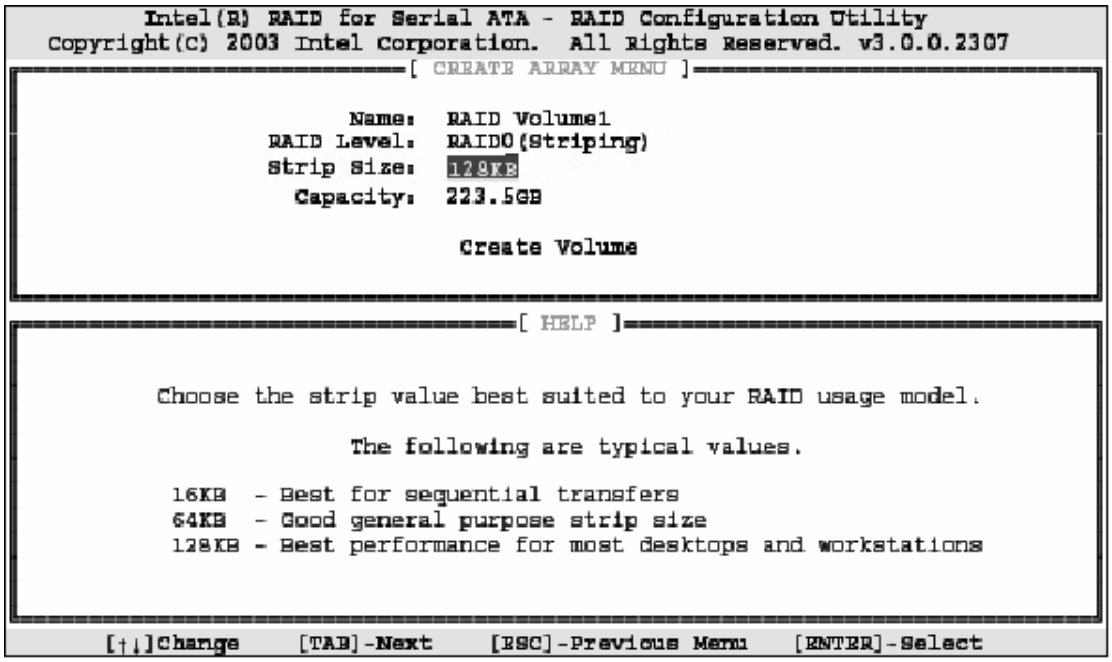

Intel(R) RAID for Serial ATA - RAID Configuration Utility
Copyright(C) 2003 Intel Corporation. All Rights Reserved. v3.0.0.2307
[MAIN MENU]
1. Create RAID Volume
2. Delete RAID Volume
3. Reset Disks to Non-RAID
4. Exit
[DISK/VOLUME INFORMATION]
RAID Volumes:
None defined.
Non-RAID Disks:
Port Drive Model Serial # Size Status Bootable
0 ST3120023AS 3KA0J1ZJ 111.7GB Normal Yes
1 ST3120023AS 3KA0H0M0 111.7GB Normal Yes
[↑↓]-Select [ESC]-Exit [ENTER]-Select Menu

(1) Create RAID Volume

1. Select option 1 "Create RAID Volume" and press <Enter> key. The following screen appears:


Intel(R) RAID for Serial ATA - RAID Configuration Utility
Copyright(C) 2003 Intel Corporation. All Rights Reserved. v3.0.0.2307
[CREATE ARRAY MENU]
Name: RAID Volume1
RAID Level: RAID0(Striping)
Strip Size: 128KB
Capacity: 223.5GB
Create Volume
[HELP]
Enter a string between 1 and 16 characters in length that can be used to uniquely identify the RAID volume. This name is case sensitive and can not contain special characters.
[↑↓]Change [TAB]-Next [ESC]-Previous Menu [ENTER]-Select

2. Specify a RAID Volume name and then press the <TAB> or <Enter> key to go to the next field.


Intel(R) RAID for Serial ATA - RAID Configuration Utility
Copyright(C) 2003 Intel Corporation. All Rights Reserved. v3.0.0.2307
[CREATE ARRAY MENU]
Name: RAID Volume1
RAID Level: RAID0(Striping)
Strip Size: 128KB
Capacity: 223.5GB
Create Volume
[HELP]
Choose the strip value best suited to your RAID usage model.
The following are typical values.
16KB - Best for sequential transfers
64KB - Good general purpose strip size
128KB - Best performance for most desktops and workstations
[↑↓]Change [TAB]-Next [ESC]-Previous Menu [ENTER]-Select

3. Select the strip value for the RAID 0 or RAID 1 array by using the "upper arrow" or "down arrow" keys to scroll through the available values, and pressing the <Enter> key to select and advance to the next field. The available values range from 4KB to 128 KB in power of 2 increments. The strip value should be chosen based on the planned drive usage. Here are some suggested selections:

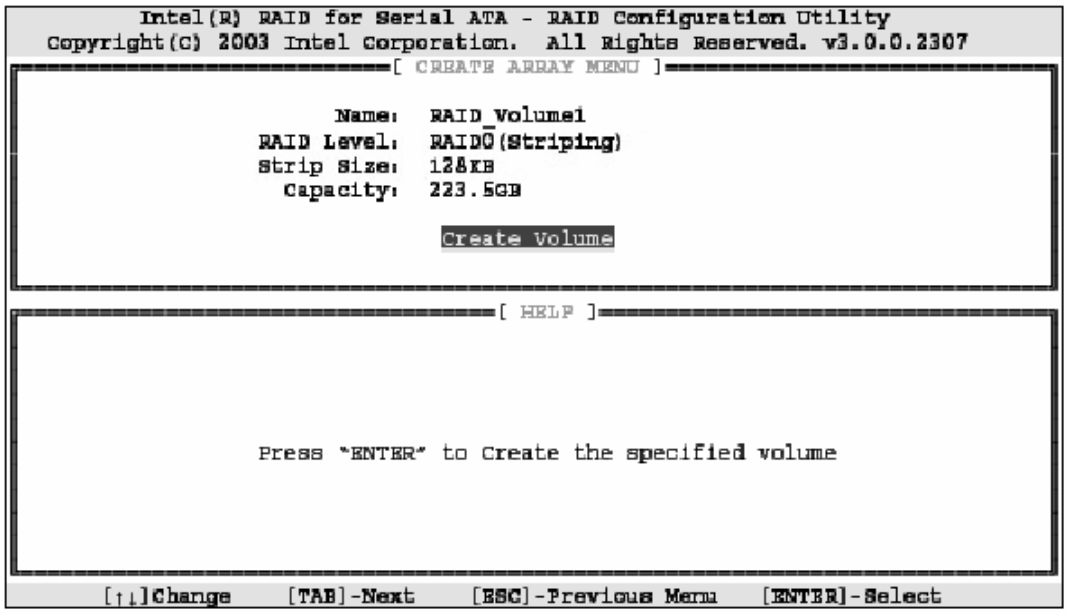
   16KB: Best for sequential transfers

   64KB: Good general purpose strip size

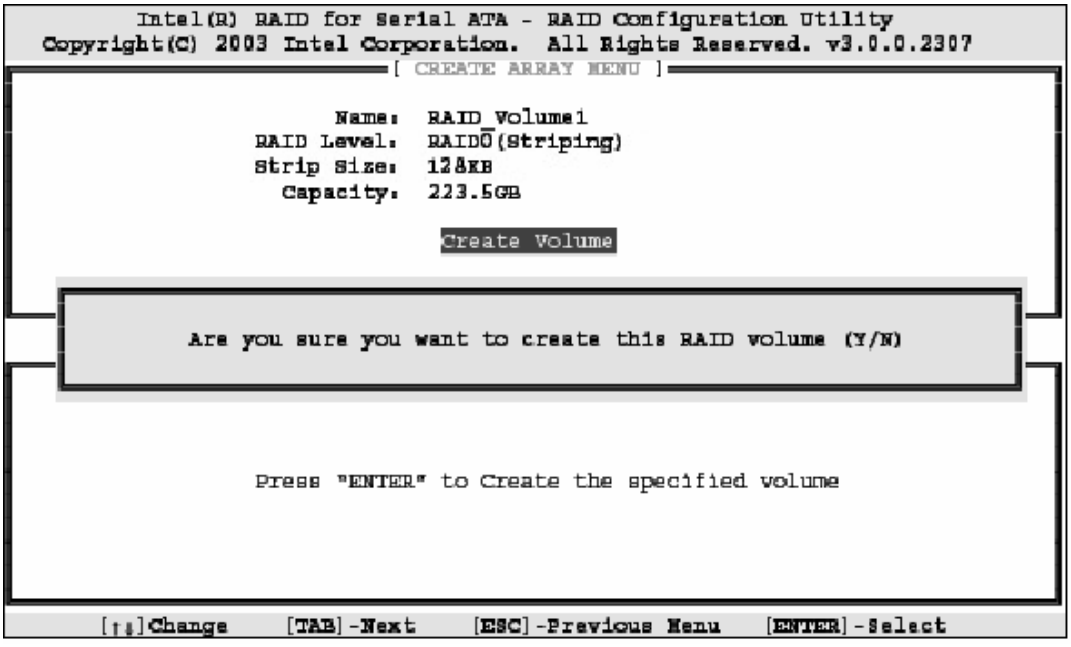
   128KB: Best performance for most desktops and workstations

   Select the RAID level (**Striping** for RAID0 and **Mirror** for RAID1) by scrolling through the available values by using the "upper arrow" or "down arrow", and press the <Enter> key to select and advance to the next field.

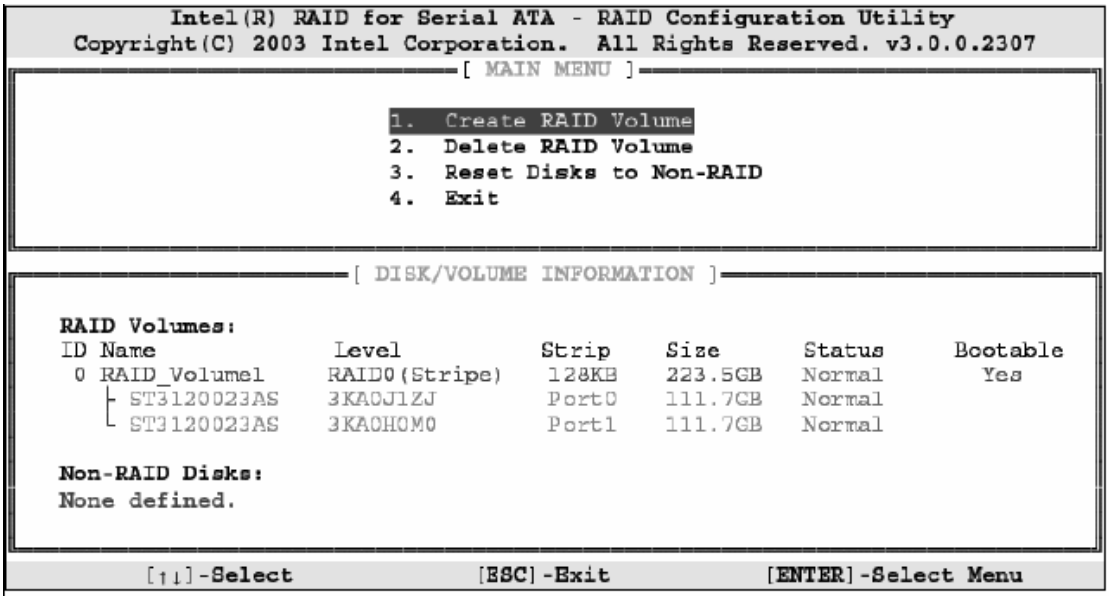
4. From the Strip size, press the <Tab> or <ENTER> key to advance to the **Create Volume** prompt. The window will appear as follow:


Intel(R) RAID for Serial ATA - RAID Configuration Utility
Copyright(C) 2003 Intel Corporation. All Rights Reserved. v3.0.0.2307
[CREATE ARRAY MENU]
Name: RAID_Volume1
RAID Level: RAID0(Striping)
Strip Size: 128KB
Capacity: 223.5GB
Create Volume
[HELP]
Press "ENTER" to Create the specified volume
[↑↓]Change [TAB]-Next [ESC]-Previous Menu [ENTER]-Select

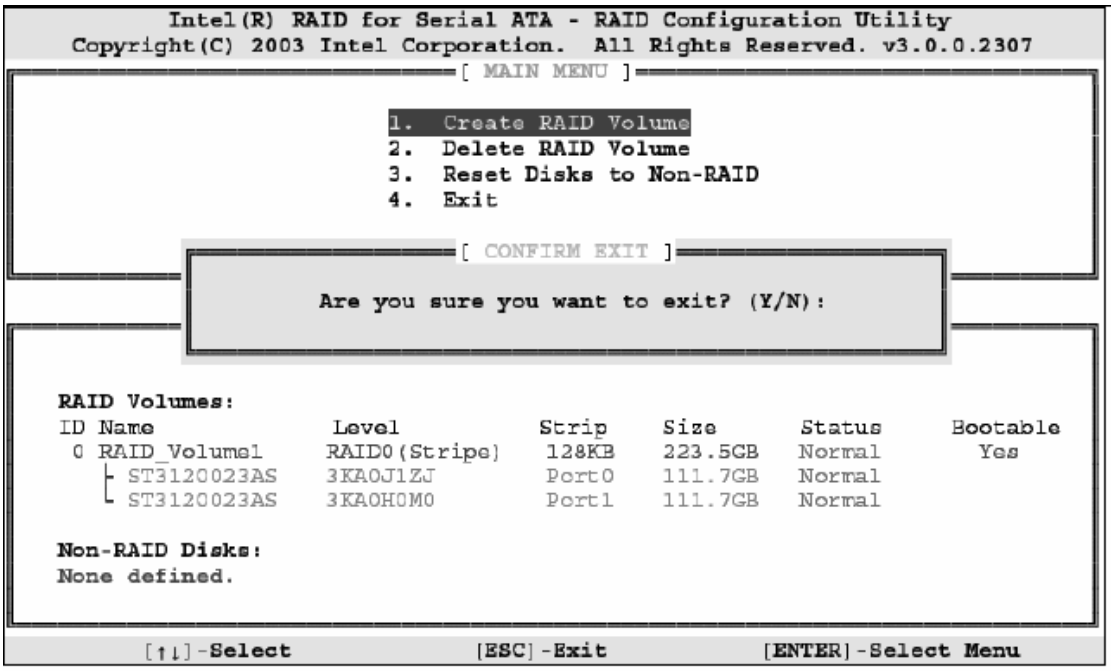
5. Then press <Enter> to create the specified volume and the following prompt will show:


Intel(R) RAID for Serial ATA - RAID Configuration Utility
Copyright(C) 2003 Intel Corporation. All Rights Reserved. v3.0.0.2307
[CREATE ARRAY MENU]
Name: RAID_Volume1
RAID Level: RAID0(Striping)
Strip Size: 128KB
Capacity: 223.5GB
Create Volume
Are you sure you want to create this RAID volume (Y/N)
Press "ENTER" to Create the specified volume
[↑↓]Change [TAB]-Next [ESC]-Previous Menu [ENTER]-Select

6. Press <Y> to confirm the selection or press <N> to create the RAID volume again. Then you will return to the main menu with an updated status as follows:


Intel(R) RAID for Serial ATA - RAID Configuration Utility
Copyright(C) 2003 Intel Corporation. All Rights Reserved. v3.0.0.2307
[MAIN MENU]
1. Create RAID Volume
2. Delete RAID Volume
3. Reset Disks to Non-RAID
4. Exit
[DISK/VOLUME INFORMATION]
RAID Volumes:
ID Name Level Strip Size Status Bootable
0 RAID_Volume1 RAID0(Stripe) 128KB 223.5GB Normal Yes
ST3120023AS 3KA0J1ZJ Port0 111.7GB Normal
ST3120023AS 3KA0H0M0 Port1 111.7GB Normal
Non-RAID Disks:
None defined.
[↑↓]-Select [ESC]-Exit [ENTER]-Select Menu

7. Scroll to option 4 Exit and press <Enter> to exit the RAID Configuration utility. The following prompt appears:

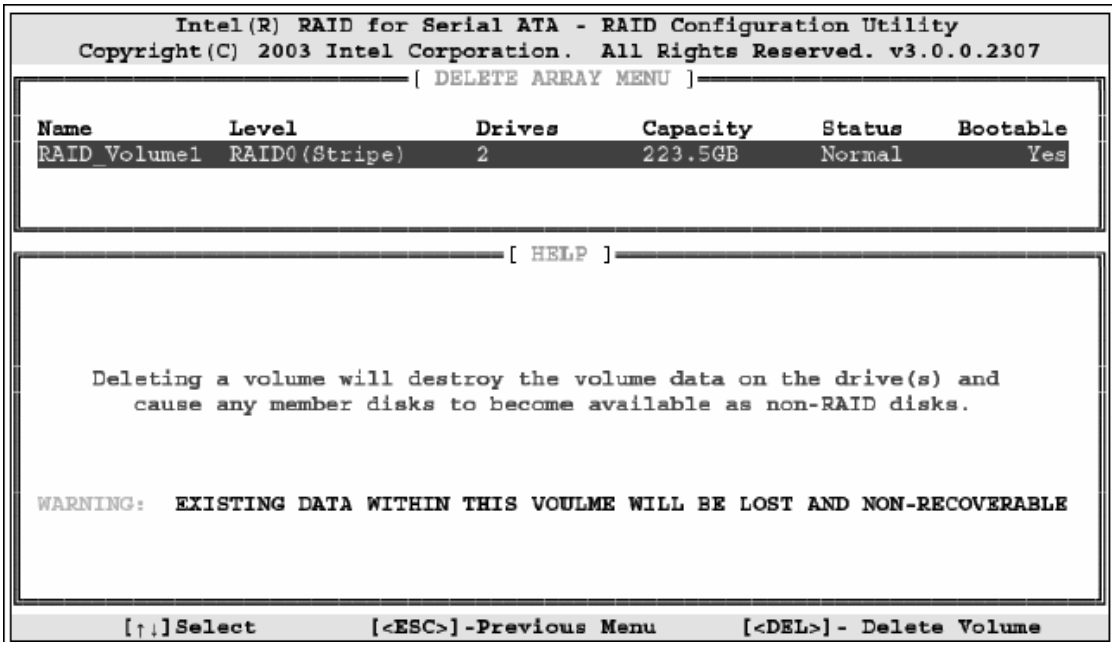

Intel(R) RAID for Serial ATA - RAID Configuration Utility
Copyright(C) 2003 Intel Corporation. All Rights Reserved. v3.0.0.2307
[MAIN MENU]
1. Create RAID Volume
2. Delete RAID Volume
3. Reset Disks to Non-RAID
4. Exit
[CONFIRM EXIT]
Are you sure you want to exit? (Y/N):
RAID Volumes:
ID Name Level Strip Size Status Bootable
0 RAID_Volume1 RAID0(Stripe) 128KB 223.5GB Normal Yes
ST3120023AS 3KA0J1ZJ Port0 111.7GB Normal
ST3120023AS 3KA0H0M0 Port1 111.7GB Normal
Non-RAID Disks:
None defined.
[↑↓]-Select [ESC]-Exit [ENTER]-Select Menu

8. Click <Y> to confirm the exit.

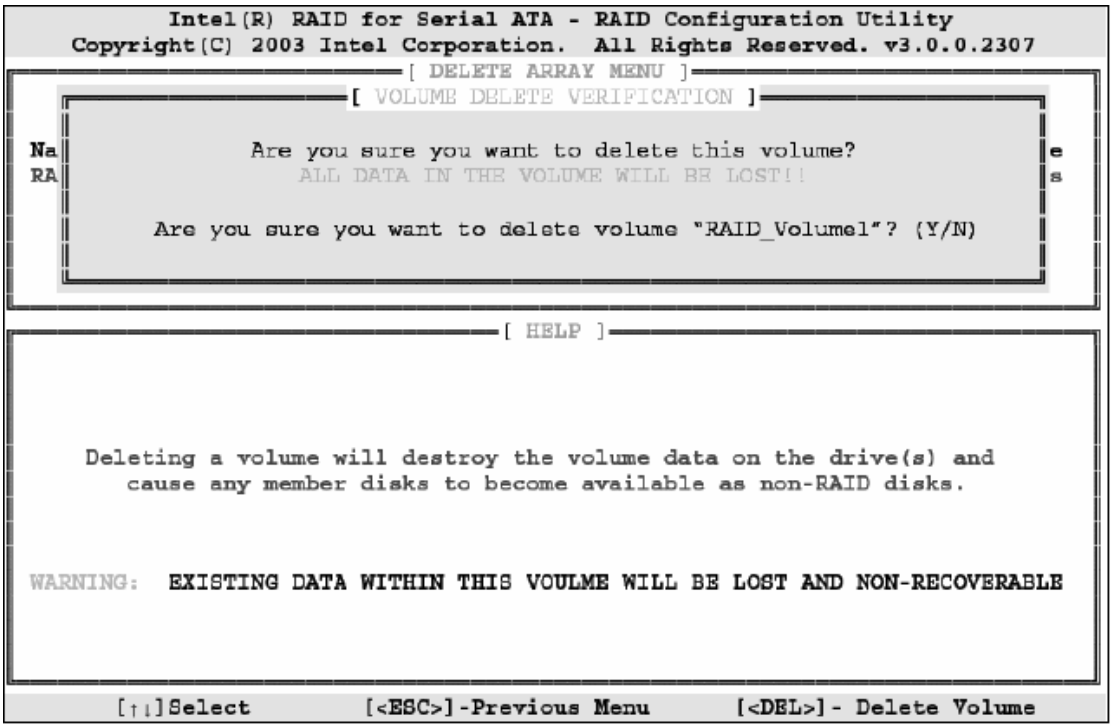
(2) Delete RAID Volume

Here you can delete the RAID volume, but please be noted that all data on RAID drives will be lost.

Select option 2 **Delete RAID Volume** from the main menu window and press <Enter> key to select a RAID volume for deletion. The following window will appear:


Intel(R) RAID for Serial ATA - RAID Configuration Utility
Copyright(C) 2003 Intel Corporation. All Rights Reserved. v3.0.0.2307
[DELETE ARRAY MENU]
Name Level Drives Capacity Status Bootable
RAID_Volume1 RAID0(Stripe) 2 223.5GB Normal Yes
[HELP]
Deleting a volume will destroy the volume data on the drive(s) and cause any member disks to become available as non-RAID disks.
WARNING: EXISTING DATA WITHIN THIS VOULME WILL BE LOST AND NON-RECOVERABLE
[↑↓]Select
[<ESC>]-Previous Menu
[<DEL>]- Delete Volume

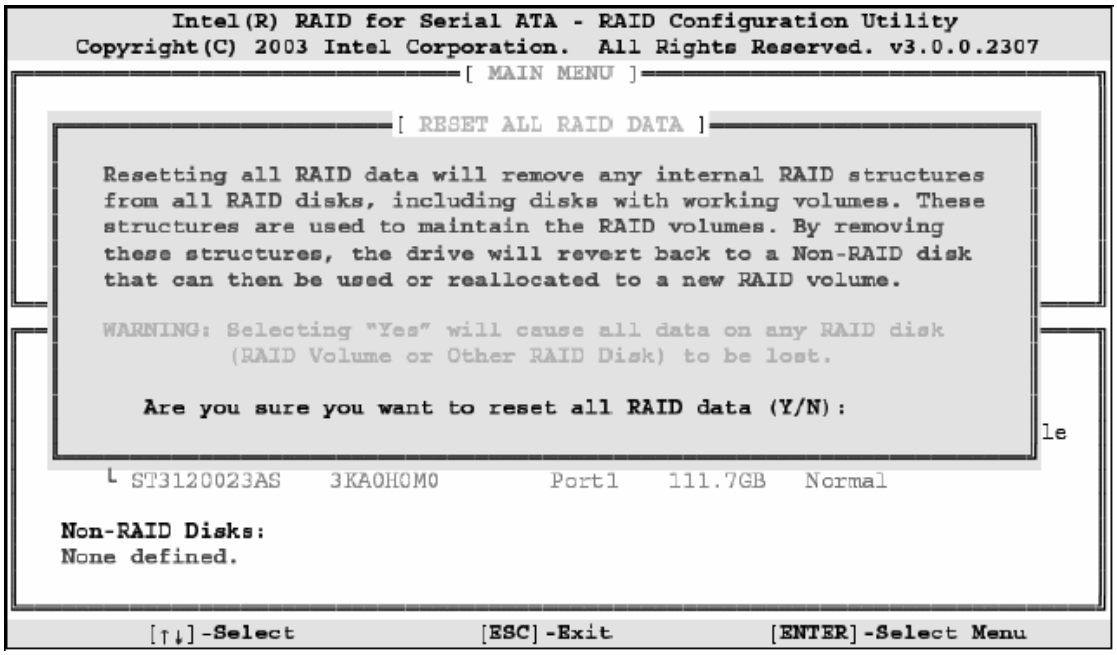
Select the volume and press <Delete> key to delete the RAID volume. The following prompt appears:


Intel(R) RAID for Serial ATA - RAID Configuration Utility
Copyright(C) 2003 Intel Corporation. All Rights Reserved. v3.0.0.2307
[DELETE ARRAY MENU]
[VOLUME DELETE VERIFICATION]
Are you sure you want to delete this volume?
ALL DATA IN THE VOLUME WILL BE LOST!!
Are you sure you want to delete volume "RAID_Volume1"? (Y/N)
[HELP]
Deleting a volume will destroy the volume data on the drive(s) and cause any member disks to become available as non-RAID disks.
WARNING: EXISTING DATA WITHIN THIS VOULME WILL BE LOST AND NON-RECOVERABLE
[↑↓]Select
[<ESC>]-Previous Menu
[<DEL>]- Delete Volume

Press <Y> key to accept the volume deletion.

(3) Reset Disks to Non-RAID

Select option 3 **Reset Disks to Non-RAID** and press <Enter> to delete the RAID volume and remove any RAID structures from the drives. The following screen appears:


Intel(R) RAID for Serial ATA - RAID Configuration Utility
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[MAIN MENU]
[RESET ALL RAID DATA]
Resetting all RAID data will remove any internal RAID structures from all RAID disks, including disks with working volumes. These structures are used to maintain the RAID volumes. By removing these structures, the drive will revert back to a Non-RAID disk that can then be used or reallocated to a new RAID volume.
WARNING: Selecting "Yes" will cause all data on any RAID disk (RAID Volume or Other RAID Disk) to be lost.
Are you sure you want to reset all RAID data (Y/N):
le
└ ST3120023AS 3KA0H0M0 Port1 111.7GB Normal
Non-RAID Disks:
None defined.
[↑↓]-Select
[ESC]-Exit
[ENTER]-Select Menu

Press <Y> key to accept the selection.